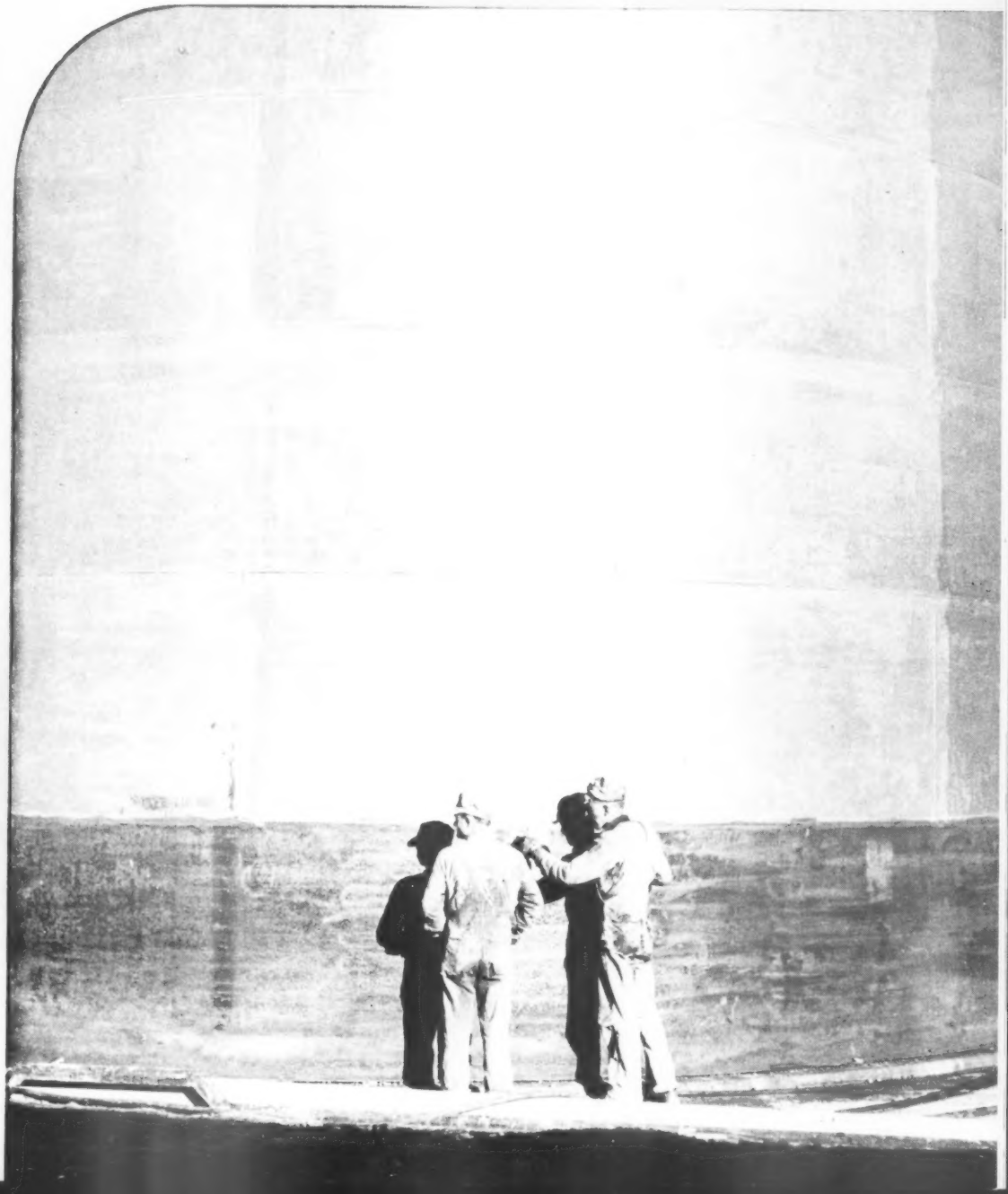
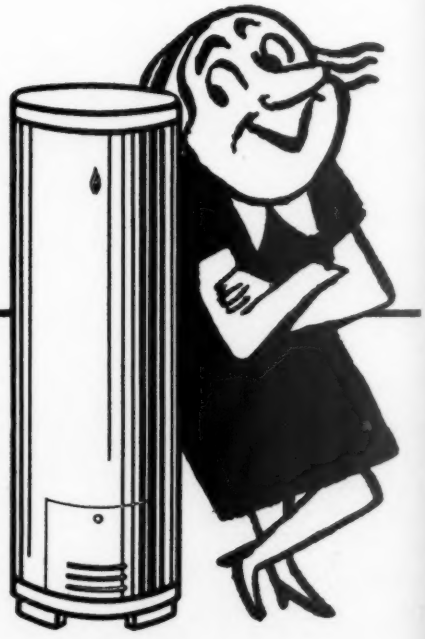
AMERICAN GAS ASSOCIATION



FEBRUARY
1954

"All right if I borrow a little hot water for the laundry?"



Why borrow trouble? Get a new automatic Gas water-heater and be sure of tankful after tankful of hot water whenever you want it. We'll be glad to advise you about the most economical size for your home, for your needs. Come in.

only Gas automatic water-heaters give hot water **3 times faster**

AMERICAN GAS ASSOCIATION

• One of the A. G. A. series of 14 gas water heater sales ads appearing in "The Saturday Evening Post" Feb. 6 through June 19

Tasks such as scraping and painting fuel tanks are just as vital to the gas and oil business as more glamorous jobs. Standard Oil (N. J.) photo

ONE of the most significant events in many months was the recent demonstration series in Cleveland of A. G. A. research-developed range units. Approximately 180 enthusiastic executives from member gas companies and manufacturer concerns attended the three-day showings, and completed questionnaires on their initial reactions. We urge you to study carefully the account of these developments that appears on pages 4 through 8. For your added assistance, we have published on page 8 a brief list of suggested steps that A. G. A. members can take to spur the actual development of gas ranges incorporating these advanced research principles. . . . Harold Zeamer's article in this issue on "Challenge of the Gas Incinerator" is profitable reading for everyone interested in building new gas load. . . . The case history of safety progress in the Pittsburgh Group companies and W. B. Johnston's discussion of accident control and insurance costs are also suggested reading for those in management and supervisory jobs. . . . Rounding out the diet for February is the Home Service Workshop report, the most informative Industrial Relations Round-Table yet and a factual account of A. G. A.'s victory in the seal of approval suit.

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VOL. 36 NO. 2

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STRAWS *in the wind*

● *Designed to give you a panoramic*

WHERE ARE THE PIONEERS?

Are you a pioneer? Are you willing to introduce improved practices and apply new developments when to do so hits your pocket book? Are you completely sincere when you talk about keeping the gas cooking load?

America has always had pioneers. It needs them now. The gas industry needs them too. It needs top executives who will say "We are going to improve our safety record starting now"—and mean it! The gas industry needs men who will study developments such as last month's advanced range demonstration in Cleveland and say "It's good! I'll invest in it!"

We have grown until today we serve more than 27 million customers. To continue to grow, to remain strong and solvent, we must seek constant improvement. We must encourage faith and conviction. We need more pioneers!

CLINICS PAY OFF

As a result of attendance at Gas Company Development Clinics, Metropolitan Utilities District of Omaha is adding six gas company appliance salesmen, reducing the average number of customers per salesman from 6,000 to 4,000.

PHILLIPS CASE

U. S. Supreme Court agreed last month to review the lower court ruling in the Phillips Case which, in effect, brought natural gas producers under FPC jurisdiction. No definite date has been set.

Justice Black dissented.

UNDER ONE COVER

A. G. A. Insurance and Personnel Committees have developed separate reports on "major" or "Catastrophe Medical Expense" insurance—a subject which has aroused tremendous interest throughout the industry since the first plan was introduced experimentally in 1949. As the two reports present the subject differently, they will be issued under one cover as soon as the printer can turn it out.

BELIEVE IT OR NOT

Gas-operated TV may be next. Dr. Lee de Forest, 80, inventor of the radio vacuum tube, is reported working on an experimental gas model in his Hollywood shop.

COMPRESSOR STATIONS

Gas companies with large compressor stations may find their fire and extended coverage premiums rising substantially if a compressor station rate schedule approved by the insurance rating agency is adopted by individual state insurance boards. This is the gist of a report submitted to the Association's directors by the A. G. A. Insurance Committee (story on page 48, January Monthly).

FOREVER VIGILANT

A. G. A. Public Information Bureau recently notified all major TV networks that member gas companies are concerned over the increasing appearance of dramatic presentations showing gas as an instrument of suicide and murder. A. G. A. has also written to a competitive manufacturer regarding his use on TV and radio programs of misleading statements concerning gas cooking.

COMMON INTERESTS

"This is much the way Houston Natural Gas will look in 1975!" exclaimed L. P. Thomas, vice-president of the Texas utility, reporting on a recent goodwill visit to the huge domain of Southern California Gas Company. Most gratifying discoveries, Mr. Thomas found, were the high regard and interest that Southern Cal employees showed for Houston Natural's operations.

TIE-INS ON TV

A powerful Mrs. America tie-in with television has been accomplished by Washington Gas Light Company which has joined forces in the Washington, D. C. area with stations WMAL and WMAL-TV. Approximately 900 radio and 400 TV spots will be used to build up interest in the Mrs. America drive (a PAR activity) with actual mention of cooperating food chains. Local semi-finalists will be introduced on radio and TV and Mrs. Washington, D. C. will be interviewed on a half-hour program from the gas company auditorium.

NEW BUILDING CODE

New York State's long-awaited Building Construction Code applicable to multiple dwellings is announced in the Industry News Section this month. American Gas Association is high on the list of issuing organizations whose standards are recognized and incorporated in the new code.

TELL YOUR STORY

You can help to build up your gas company as a major partner in your community by distributing to science teachers the A. G. A. educational kit "Natural Gas—Science Behind Your Burner." To date, more than 7,000 of these kits have been ordered by member companies and educational institutions (a PAR activity).

PUBLIC RELATIONS AWARD

Public Utilities Advertising Association is adding final touches to its plans for an annual public relations contest in the gas and electric industries. Proposed plan is for awards to be presented through American Gas Association and Edison Electric Institute to the utilities that have done the best PR job of the year.

NATURAL GAS OUTLAY

Natural gas utilities plan to spend $52,256,300 in 1954 for improvement and expansion of gas service in Western Pennsylvania, according to Pennsylvania Natural Gas Men's Association. This represents an average capital outlay of about $55 for each of more than 950,000 natural gas consumers in the area—the eighth consecutive year of record-breaking growth in natural gas facilities and service.

RECOMMENDED PRACTICE

What is the best way to purge odorant drums? One large manufacturer recommends that the head of the drum be cut out with cutter or chisel. The drum can then be deodorized easily and inexpensively by burning out the interior with two to three quarts of kerosene. The clean drum can be used as a trash can.

KEEP CALLING

Take a tip from Union Gas Company of Canada, Ltd., which has built up a fine record of customer relations. The company's industrial gas men try to call at least twice a month on their customers, completely checking gas-using equipment and discussing its performance. Major emphasis is placed on combining technical ability with good salesmanship.

LET'S BE ALERT

Several manufacturers of commercial gas water heaters expressed their concern at a recent A. G. A. meeting over increasing use of electric water heater boosters. Beginning this month, the gas industry's first nationwide promotion on commercial gas water heaters will combat such "creeping competition" by alerting gas companies, restaurant operators and equipment dealers on how to take maximum advantage of this valuable load (a PAR activity). **Story on page 34.**

EMPHASIS ON RESEARCH

Title of the Gas Production Research Committee has been changed to "Gas Operations Research Committee" to specify more clearly the group's broad activities "from the city gate to the waterfront." The committee's 1954 program includes added emphasis on production of natural gas substitutes, both oil and gas and pipeline gas from coal, as well as distribution problems (a PAR activity).

JOINT ACTION NEEDED

American Public Works Association is encouraging utilities, contractors and equipment companies to join APWA as associate members. Objective—joint action on common problems in order to remove unnecessary duplications and requirements. Write American Public Works Association, 1313 East 60 St., Chicago.

WAR ON OBSOLESCENCE

Twenty-one million homes past the age of 30 have been voted the prime target of the gas room heating equipment industry in 1954. According to T. D. Bromley, chairman of the GAMA group, sales of non-central gas heating equipment this year will exceed 1953 figures which topped 1,600,000.

BRIGHTER FUTURE

How to brighten the future of America's cities will be outlined by government and business leaders at a businessmen's conference on urban problems in San Diego, March 4 and 5.

STORAGE STATISTICS

J French Robinson, president, Consolidated Natural Gas Co., reports that the system now has $55 million worth of natural gas in its storage fields, 14 times as much as ten years ago, with an investment of $51.5 million in storage facilities. This is about one-fifth the total investment in the entire U. S. for gas storage plant and property, Mr. Robinson noted.

SUPPORT FOR PAR

Addressing Plumbing and Heating Wholesalers of New England, Inc., last month, John J. Quinn, vice-president, Boston Consolidated Gas Co., presented this New Year's resolution:

"I would suggest to wholesalers, dealers and utilities that we jointly take active steps to combine our forces and take advantage of the many millions of dollars invested each year through the gas industry's PAR program, by local utilities and by gas appliance manufacturers in telling the story of gas and gas appliances to consumers in our several communities."

HOME RUN FOR GAS

Gas heaters and water heaters comprise a new championship team at Milwaukee County Stadium, home of the Milwaukee Braves, according to GAMA.

Earl H. Eacker (left), president of A. G. A., and Edwin L. Hall, director, A. G. A. Laboratories, examining one of the new top burners developed in PAR-sponsored research project

Gas range research demonstration. At left is W. B. Kirk, chief research engineer, A. G. A. Laboratories. Patricia Speidel (right) is cutting steak cooked by "golden glow" broiler (far right)

Walter B. Kirk (left), A. G. A., and W. G. Rogers, president, The East Ohio Gas Co., Cleveland, discussing characteristics and advantages of the new Vary Hot gas burner

Point 4, Industry Action Program: A. G. A. members will assume leadership in promoting sales of top quality appliances

Research unveils new range units

a PAR activity

The gas industry is squarely faced with its greatest opportunity to protect and strengthen the gas cooking load. For the first time, vastly superior gas ranges incorporating new research-developed principles are a practical possibility.

A working "prototype" of these improved gas range units, incorporating the most important of the advanced features developed by American Gas Association Laboratories in PAR-sponsored research projects, was unveiled last month in a series of dramatic demonstrations in Cleveland, Ohio. About 120 top executives of member gas companies from all parts of the country attended the first two range displays, January 13 and 14 in the auditorium of The East Ohio Gas Company. A third demonstration on January 18 was attended by 60 representatives of manufacturers of gas ranges and accessories. Both audiences were impressed and highly enthusiastic.

The novel demonstrations were designed to trigger industrywide development and sales programs of gas ranges that are superior in seven important respects:

(1) Ranges that are cool for cooler kitchens.

J. Theodore Wolfe, Baltimore, chairman, Gas Industry Development Committee, presiding at January 13 research-developed gas range unit demonstration for gas company executives

Partial view of audience at initial A. G. A. range research demonstration. About 120 top executives of gas utility companies attended first two presentations in Cleveland, January 13 and 14

Patricia Speidel, a member of the A. G. A. research staff, demonstrating that the head of the newly developed Vary Hot gas range top burner is no larger than head of a nickel

(2) Instantaneous ignition or reignition of top burners at any input rate.

(3) Unsurpassed heating speeds plus high efficiency.

(4) Greater cleanability.

(5) Precision control of the 1,000 heats possible with top gas burners plus very low turn-down heats.

(6) A fast, large area "golden glow" boiler with a radiant flame, and

(7) Positive elimination of explosion hazards in a precision controlled oven.

Sponsored jointly by the industry's PAR and Gas Industry Development Committees, the demonstrations represented a major new approach, designed to discover improvements now possible in gas ranges and reduced the time lag between the discovery of these features and their appearance on the market.

The Cleveland displays marked the first time that working models graphically depicting research developments have been presented by American Gas Association to interested utility and manufacturer representatives. The demonstration technique proved so successful with ranges that it will be used in other PAR research activities.

Featured in the range unit demonstration were new designs of top burners, pilots, valves, an indirect oven, and a "golden glow" broiler with a radiant flame. A new "Vary Hot" Burner only the size of a nickel proved especially popular with the utility and manufacturer executives. This burner will perform satisfactorily over an extremely wide range of Btu inputs. There is no air shutter to get out of adjustment and the burner is easy to clean. Keen interest was shown also in the low heat loss of the indirect type gas oven.

Presiding at the two meetings for gas company executives was J. Theodore Wolfe, chairman of the Gas Industry Development Committee and executive vice-president, Consolidated Gas Electric Light & Power Company of Baltimore. R. W. Ramsdell, vice-president, The East Ohio Gas Co., Cleveland, and a member of the Gas Industry Development Committee, acted as chairman of the third meeting which was attended by representatives of manufacturer companies.

Opening the meetings, Mr. Wolfe told how the PAR Committee and the Gas Industry Development Committee have joined hands to improve the competitive position of the gas industry. He pointed out that the Action Program for Gas Industry Development calls for each utility company to assume

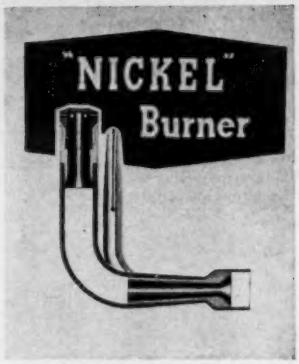


Fig. 1—VARY HOT (NICKEL-SIZE) BURNER: No air shutter—turndown 350 Btu/hr—burns city, LP-air gases; 50 Btu/hr pilot; efficiency at 9,000 Btu/hr is 50 percent; 6,600 Btu—58 percent; 16,000 Btu—36.5 percent; single-duty valve with precision heat control and by-pass tube connected to burner ignition port for reliable, instantaneous ignition or reignition at any heat setting

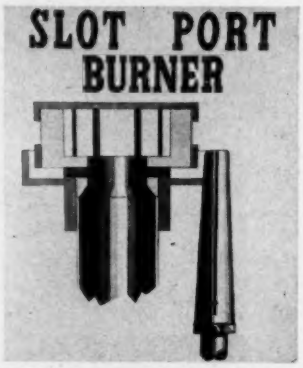


Fig. 2—SLOT PORT BURNER: No air shutter—turndown is 350 Btu/hr—burns city, LP-air and LP gases—50 Btu/hr pilot; efficiency of burner at 9,000 Btu/hr is 49.2 percent; double-duty valve with low heat side connected to burner ignition port for reliable, instantaneous ignition or reignition at any heat setting

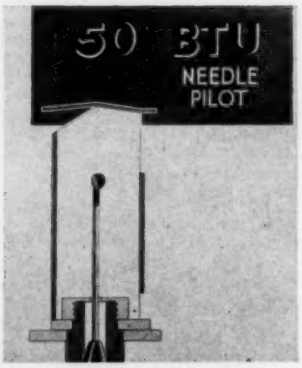


Fig. 3—50 BTU NEEDLE PILOT: Total heat input for four-burner top section would be less than 200 Btu per hour. Main part of pilot is a stainless steel, hypodermic needle. Pilot is insensitive to gas pressure changes, protected from drafts and spill-overs

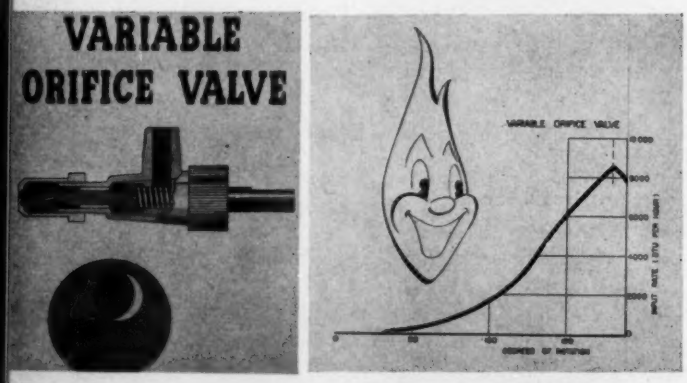


Fig. 4—VARIABLE ORIFICE VALVE: Single-duty type valve with two off-center orifices rotating past each other to give full heat when orifices are matched; 180 degrees of effective valve turning for heat control

leadership in promoting the sale of top quality appliances. He explained that this program also urges the utility to insist that "individual manufacturers shall bear their share of the responsibility for the upgrading and promotion of quality gas appliances."

Mr. Wolfe also noted that the Action Program calls for faster upgrading of gas appliances by expediting those research projects which show greatest promise, and by constructing demonstration units whenever substantial improvement is indicated. Thus, he said, this initial demonstration was the first manifestation of a new united aggressive gas industry policy under the Action Program.

During the intermission following luncheon, Earl H. Eacker, president of A. G. A. and Boston Consolidated Gas Co., urged the entire gas industry to support the A. G. A. program to speed up the production of improved gas appliances. He praised the range developments in glowing terms.

Earlier, Otto E. Zwanzig, recently appointed director of the PAR Program, and secretary, Gas Industry Development Committee, spoke briefly on the importance of the program and its significance to PAR subscribers. Following his talk, Walter B. Kirk, chief research engineer of the A. G. A. Laboratories, made the major presentation of the domestic gas research results. He was assisted in the visual presentation of the working range section models by Patricia Speidel of the Laboratories' research staff. As part of the demonstration, cakes were baked, bread was toasted, a steak was broiled, and coffee and oatmeal were kept warm by simmer burners, to illustrate performance features of the new models.

Throughout the demonstration, it was emphasized that the models shown were working laboratory units and do not represent finished commercial products. Styling, materials, and other refinements are left to the manufacturer.

Features of the afternoon session were an open discussion from the floor, a lively question-and-answer period, and detailed inspection of the models. At the conclusion of the meetings, the utility company executives and manufacturers were asked to express their opinions of the new developments. An overwhelming majority expressed approval both of the new models and this method of presenting research findings.

(Following is a summary of Mr. Kirk's comments on the advanced design range demonstration unit.)

Top section burners

This section includes four different types of burners. Two are newly designed (nickel-size or Vary Hot Burner and a slot port burner) and two contemporary burners which are commercially available (a giant burner rated at 12,000 Btu per hour input and a cross port burner).

Nickel Size Burner (Figure 1)—Small experimental burner developed as part of cooking research project. Basic principle widely used for many years on some industrial type burners and more recently on some double-duty range top burners. The ring slot burns "halo fire" just below the main ports, thus causing flame retention. Despite its small size, this burner gives a terrific heating wallop.

Characteristics: (1) a broad span of precision-controlled heats (350 to more than 16,000 Btu/hr) with good efficiency; (2) flexibility for satisfactory performance on all city gases and LPG-air mixtures; (3)elimination of the primary air adjustment; (4) reliable, instantaneous ignition or reignition at any heat setting, and (5) small size of burner and simple

construction permit easy removal and cleaning.

Slot port burner (Figure 2)—Also designed at the Laboratories as part of another cooking research project. To provide for instant lighting, this burner has somewhat the same ignition features as the nickel-size burner, with a separately charged port and carry-up slot lighting from an adjacent 50 Btu standing pilot.

Characteristics: (1) operates satisfactorily on all city gases, including peak load gases. Satisfactory performance has been obtained on 3,200 Btu butane at a normal rate of 7,200 Btu/hr; (2) also has no air shutter to get out of adjustment; (3) when rated at 9,000 Btu per hour on natural gas, its efficiency is 49.2 percent; (4) small number of ports (eight) allows low turndown or simmer rate (less than 300 Btu on Cleveland natural gas); (5) controlled flame pattern under the utensil helps raise efficiency and decrease heat losses.

Top section pilots

While we believe these pilots overcome the psychological objections to obvious heat on a range top, there is nothing to prevent the use of electric ignition with these new burners.

The two pilots which light the nickel sized and slot port burners are identical to (Figure 3). They were developed as low Btu type pilots to meet the objective of an essentially cold range with fast, reliable ignition. With this type of pilot, it is possible to use one for each burner and eliminate the slight time lag or possible mechanical defects of a flash tube. The heat input to each pilot is less than 50 Btu per hour so that its heat is not felt on top of the range nor in the kitchen on hot days. Total heat input for a four-burner top section would be less than 200 Btu per hour—much less than that of one standing pilot of conventional type. Actually, this heat is half of that given off by an idle person and less than one-fourth of the heat given off by an active person.

With the small shields developed for them, these pilots have withstood light drafts (much in excess of any that would normally be encountered in an enclosed range), acoustic tests such as banging on various parts of the range (including banging a skillet on the grate), and outage tests from spill-overs.

For ease of adjustment, a small valve for complete shut-off of the pilot is supplemented with a compressible filter. An adjustment screw squeezes or releases pressure on the filter to control gas flow rate.

Main part of these pilots is a hypodermic needle. The gas is burned on the tip of the needle so that the flame is no larger than the bead of a small hat pin and remains relatively unchanged with pressure variation for 356—8.75 IWC. The needle tip becomes red hot and acts as a flame stabilizer.

One interesting thing about these pilots is that the gas flame remains relatively unchanged with variations in line pressure. The variation between ½ normal test pressure (3.5 inches water) and 1-¼ normal test pressure (8.75 inches water) is almost indiscernible.

The ignition system, a recent commercial development, on the other side of the top section is also of new and improved design to provide for a cooler top section and less heat loss to the kitchen. A common pilot for the two contemporary burners operates in conjunction with short flash tubes. With an input rating of about 100 Btu per hour on natural gas, this pilot operates satisfactorily at any gas pressure between 1-¼ and ½ normal test pressure. The flames burn yellow at 1-½ normal pressure, but no carbon is deposited. To date, no

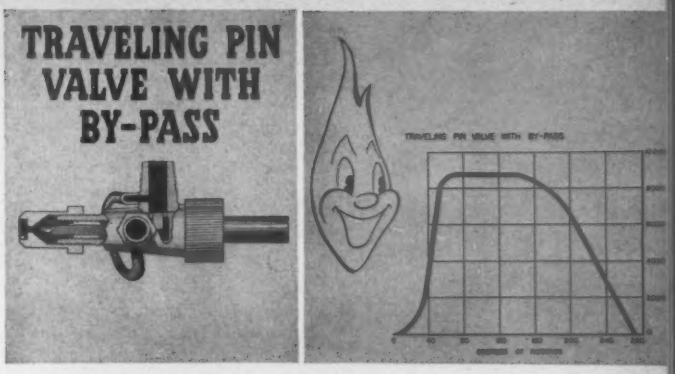


Fig. 5—TRAVELING PIN VALVE WITH BY-PASS: Single-duty type valve with altered movable tapered pin and threads for better heat control. By-pass tube supplies gas directly to the burner ignition port as soon as valve is turned on; 200 degrees of effective valve turning for heat control

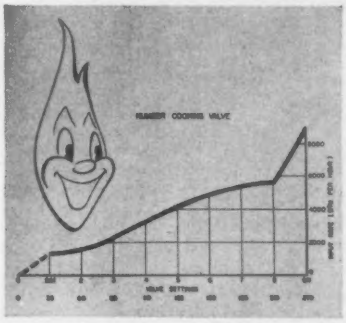


Fig. 6—NUMBER COOKING VALVE by an independent inventor—a third new method for controlling top burner heat. This valve has the desired characteristics of linear heat control and makes "number cooking" possible

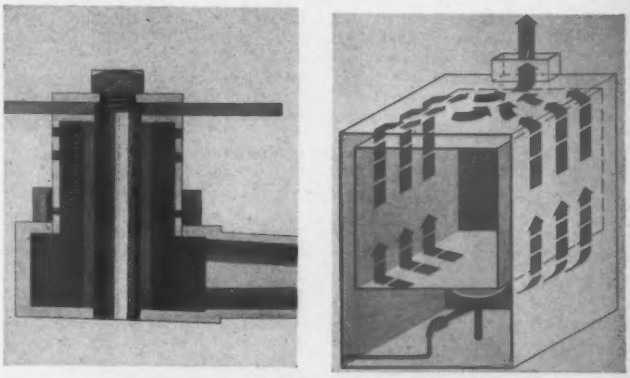


Fig. 7—LOW HEAT OVEN BURNER AND INDIRECT OVEN HEAT FLOW: Fast preheat and low heat loss to kitchen; excellent baking characteristics; very low oven maintaining temperature; cool surfaces; small burner represents savings on materials of construction; low input automatic pilot; adaptability for inclusion in a complete gas range without any special problems providing separate (high) broiler is used; has explosion-proof design

Fig. 8—LUMINOUS OR "GOLDEN" FLAME BROILER BURNER: This small burner gives fast, uniform broiling heat over wide area—effective use of heat—broad span of heats—smokeless broiling with luminous or radiant-type flames for their psychological effect

INDIRECT OVEN PERFORMANCE

	EXPERIMENTAL INDIRECT OVEN		
	EXPERIMENTAL BURNER	CONTEMPORARY BURNER	TYPICAL FRESH AIR OVENS
Burner input rate, Btu per hour	21,000	21,000	Span—14,000 to 25,000; Avg.—21,000
CO_2—per cent at nominal rate	6	8.6	Span—2.5 to 4.6; Avg.—3.8
Flue loss to kitchen, Btu per hour	3,990	3,255	4,700
Pilot rate, Btu per hour	100	100	700—1,000
Preheating to 400F, minutes (within 10 minutes)	5.5	6.5	Span—5.2 to 9.25; Avg.—6.9
Heat distribution: Cakes	Excellent	Excellent	Excellent
Pumpkin Pies	Excellent	Not Tested	Not Tested
Biscuits	Excellent	Not Tested	Not Tested
By-pass rate, Btu per hour	1,000	1,730	4,000 to 6,000
Minimum holding temperature, F above room			
Burner & Pilot	110	170	170 on CP
Pilot only	18	18	Not Tested
Effect of delayed ignition, natural and manufactured gases	No Damage	No Damage	Serious Damage
Flexibility on peak load gases	OK	OK	OK
Over-all burner volume, cubic inches	4	10.8	Avg.—8

HERE IS WHAT YOU CAN DO

● If you want to see the development of vastly superior gas ranges that will strengthen the industry's hold on the cooking load—HERE IS WHAT YOU CAN DO:

(1) Make it your prime objective to learn all about these new research-developed principles for gas ranges. Check with the A. G. A. Laboratories if you would like to view the demonstration units in Cleveland or if you require further details.
(2) Get in touch with your gas range suppliers and tell them you want these new features.
(3) Encourage your gas range suppliers to see these new developments at first-hand.
(4) Get your dealers interested in these new gas range principles.
(5) Decide now what additional sales and merchandising efforts you will put forth when gas ranges incorporating these new principles are made available.
(6) Back up your A. G. A. Gas Industry Development Committee by carrying out Point 4 of the Action Program—continue to upgrade your gas range sales.

BROILER PERFORMANCE

	EXPERIMENTAL BROILER	TYPICAL BROILERS
Heat distribution, toast	Excellent	OK
Time, minutes (10 minutes allowed)	3½	Within 10
Area covered, square inches	174	128
Preheat time to 600F, minutes (16 minutes allowed)	10	Avg.—12.67
Flue loss to kitchen during preheat, Btu per hour	4,340	6,536
CO_2—nominal input, per cent	5.6	3.5
Burner input, Btu per hour	14,000	Span—13,500 to 25,000; Avg.—17,200
Over-all burner volume, cubic inches	1/3	8
Turndown or pilot input rate, Btu per hour	160	Aerated—800 to 1,000; Non-Aerated—100 to 500
Flexibility on peak load gases	OK	OK

cracking of gas has been evidenced. The pilot burner consists of a stainless steel tube flattened and sealed at one end with a hole drill through one flat side. The pilot is mounted horizontally with the port facing downward. Its flame has no primary air and burns so that it envelopes the portion of the tubing near the port, rendering it hot. This causes the pilot flame to be quite stable at very low heat inputs.

To illustrate how this low heat pilot can be used effectively for fast, reliable ignition, the conventional giant burner has been modified to illustrate one way of having a separately charged ignition port and carry-up slot.

The original ignition charge port and carry-up slot have been blocked off from the gas supply to the main burner head. Gas is now supplied directly to the ignition charge port through a separate orifice. The separate orifice is connected to one outlet of a conventional double-duty valve, with the main burner head being supplied in the usual manner from the other outlet of the valve. The usual delay of waiting for sufficient gas to pass through the burner mixing tube and burner head to the ignition port is eliminated and this burner will reignite quickly at any input. This general principle of ignition was developed at the Laboratories and publicized in Bulletin 50 in 1948, but has apparently not been used.

The efficiency of this modified giant burner is 49 percent at 12,000 Btu per hour input, and goes up to 56 percent when the input is reduced to 9,000 Btu per hour. However, in our opinion, the minimum possible heat input or turndown rate of 1,200 Btu per hour is rather high, although some contemporary single-duty burners have a much higher minimum operating rate. Satisfactory operation is obtained on LPG and all city gases.

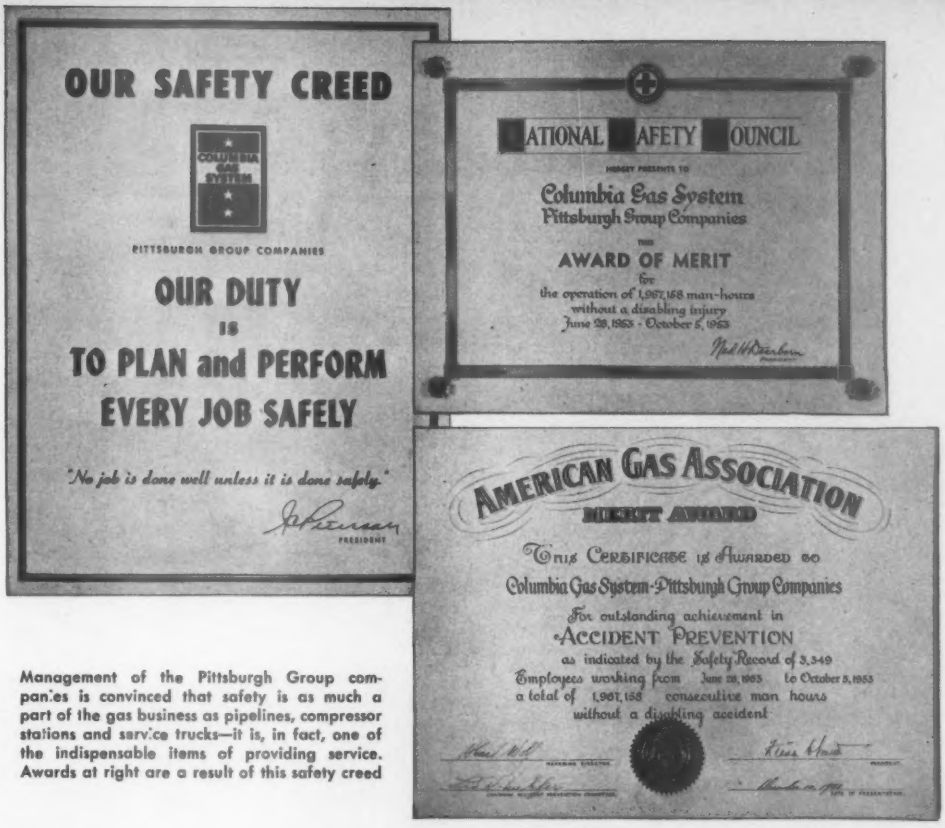
Top section valves

As already indicated, one simple expedient for providing faster ignition or resignation at any valve setting is through the use of a direct and full gas supply to the burner ignition port. As soon as these valves are moved from "off" to "on" position, a full stream of gas flows through the low heat side of the valve to the burner ignition port. The other side of the valve supplies gas to the burner head. There is no real modification of these contemporary valves, but they are employed to serve a different purpose than usual.

Total valve handle rotation available is 230 degrees, although the first 170 degrees of this rotation has no effect on controlling gas input rate to the single-duty burner but simply acts as a seal or supplies gas to the ignition port. To overcome the long turning between ignition and burner "on" positions, these valves would have to be modified by repositioning openings in the valve plug.

To provide for precision control of low heat inputs to single-duty top burners, the valve used with the left rear burner (Figure 4) was developed at the Laboratories. With an effective rotation span of 180 degrees, it allows a better selection and reproduction of the low heat inputs a housewife really needs. The principal of operation is simply to rotate one orifice past another, so that full heat input is obtained when the two holes are completely matched. It differs from a conventional valve in permitting full pressure at the orifice in any valve position, thus the wide control range.

(Continued on page 46)


OUR SAFETY CREED
PITTSBURGH GROUP COMPANIES
OUR DUTY
IS
TO PLAN and PERFORM
EVERY JOB SAFELY
"No job is done well unless it is done safely."
NATIONAL SAFETY COUNCIL
Columbia Gas System
Pittsburgh Group Companies
AWARD OF MERIT
for
the operation of 1,967,158 man-hours
without a disabling injury
June 28, 1953 - October 5, 1953
AMERICAN GAS ASSOCIATION
MERIT AWARD
This Certificate is Awarded to
Columbia Gas System-Pittsburgh Group Companies
For outstanding achievement in
ACCIDENT PREVENTION
as indicated by the Safety Record of 3,349
Employees working from June 28, 1953 to October 5, 1953
a total of 1,967,158 consecutive man hours
without a disabling accident

Management of the Pittsburgh Group companies is convinced that safety is as much a part of the gas business as pipelines, compressor stations and service trucks—it is, in fact, one of the indispensable items of providing service. Awards at right are a result of this safety creed

Management makes safety pay

Are you dragging your feet on safety? Or are you convinced, like top management in the Pittsburgh Group Companies of The Columbia Gas System, Inc., that *it is economically sound and profitable to prevent accidents?*

From President John C. Peterson, down through the ranks of the six companies of Columbia Gas System's Pittsburgh Group, they know that the cost of accident prevention is far less than the cost of careless and unsafe practices. The heart of their highly successful program is full managerial support and participation. Everybody works at safety. Their record is a challenge to the entire gas industry.

Just how successful the Group's accident prevention program has been is shown by these facts. From June through October 1953 the Group's 3,350 employees worked 1,967,158 manhours without a serious accident, an accomplishment which netted National Safety Council's Award of Merit and American Gas Association's Certificate of Merit Award.

At the beginning of this year, the Pittsburgh Group was leading all major gas utilities in the nation with an industrial accident frequency rating *just slightly over one per million man-hours.*

But that is not all. The general office at the end of 1953 had worked a million manhours without a disabling injury. Several of the gas distribution districts are approaching that record. As a result, the Pittsburgh Group won both the industrial and motor vehicle safety awards in the 1953 competitions among operating groups of the Columbia Gas System. The Group established a record 83.55 percent reduction in frequency rate of industrial accidents over the five-year average and a 20.61 percent reduction in vehicle accidents over the five-year average.

The six Pittsburgh Group Companies* serve some 750 communities in Pennsylvania, Ohio, West Virginia, New York and Maryland. Everywhere you go in the Group they are talking about safety. It is no empty boast when they tell you, "All doors are open to safety!"

Back in September 1951 when the

* The Manufacturers Light and Heat Co., Natural Gas Company of West Virginia, Cumberland and Allegheny Gas Co., Binghamton Gas Works, The Keystone Gas Co., Inc., and Home Gas Company.

Group had a safety record that was about the average for all industry at that time, A. R. "Gus" Kelliher was a field assistant to the employee relations director. He remembers that Mr. Peterson called him into the office of F. W. Batten, now vice-president and general manager, and told him "I want to do something to improve our accident record."

Mr. Kelliher accepted the job of safety director for the Pittsburgh Group. "We decided after a year spent developing safety techniques," he reports, "that the real key to put teeth into our safety program was more management interest."

So to better the companies' showing after a dismal 1952, Mr. Batten sent letters to all department heads instructing them to follow through personally on all accidents. He requested active support from everyone on a daily rather than a periodic basis.

Since that time, Mr. Batten and other executives have kept in close touch with the accident prevention program. His letter of February 6, 1953 to department heads noted that:

"In addition to the active support, all major industrial and automobile accidents are to be investigated personally. In such cases, arrangements must be made by the department head to have the employee brought into the Pittsburgh office with his supervisor or supervisors, and have personal consultation on his accident. Where this is not feasible, the department head must visit the local or field office and conduct a personal investigation at that location. On completion of the personal interview and/or investigation, a written report shall be directed to me containing a summary of the proceedings."

When the full program was implemented in early 1953, the safety director and department heads conducted special meetings in all the territories. On some occasions they attended as many as three meetings a day. Over 75 employee safety committees have been organized at all major working locations to sustain the program and clean up hazards at the grass roots level. These committees and the local personnel supervisors have played vital roles in the Group's accident prevention program. Monthly supervisors meetings are also held at which representatives of top management make frequent appearances. One hundred percent cooperation has been received from all department heads.

The safety director now reports directly to Dan J. Egan, vice-president, a particularly vocal advocate of safe operations.

"We convinced department heads, and key management men that safety is an essential part of their job, on a par with their operating responsibilities," Mr. Egan declared recently.

"We're directly concerned, too, with the near accidents," he added. "There isn't much difference between a lost-time accident and the near-situation that just misses being a serious accident. Any incident where we have a near-situation gets a full report now. The best way we can tell how an employee is doing is to check his losttime and near-accident record. In this way, we help to protect our employees and at the same time increase the efficiency of our operations."

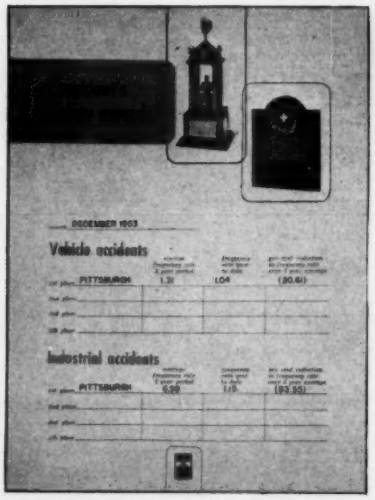
Equally important support has been given to the Accident Prevention Program by E. D. Clutter, vice-president; G. E. Wilson, assistant vice-president in charge of distributions; S. G. Day, superintendent of production; R. E. Grant, superintendent of transmission; H. R. Weitzel, superintendent of compressor stations, and A. B. Lauderbaugh, chief engineer.

The "open door" policy is so effective now that whenever a problem arises the safety director goes straight to the men in charge of the department and gets it straightened out.

One day last year, there was a near accident involving an air compressor and tow truck. Mr. Kelliher went directly to the assistant vice-president in charge of distribution and told him, "I've got a problem. Some of these days we're not going to be as lucky as we are now. You're an operating man—what do you suggest?"

"We'll call in all our garage foremen

"Open door" policy on safety helps Pittsburgh Group Companies capture two top Columbia Gas System honors



and talk it over," the executive replied. As a result of employee suggestions made at this and other meetings, the Pittsburgh Group will soon have one safe, standardized means of connecting its compressors.

The various operating divisions and distribution districts have expressed their interest in safety through a number of contests and novel approaches. The district manager in the Wheeling, West Virginia, area has personally conducted annual fire schools at different locations.

There's also the actual case of a work crew foreman who drove his truck in front of the ditch in which his men were working to protect them in the event a car careened off the road. Ten minutes later a speeding car went out of control and smashed into the truck. The workmen climbed safely out of the ditch.

One distribution district designed a contest on a point basis for motor vehicle accidents. In addition, any man involved in a chargeable accident had to wear a prominent eight-ball and chain in his lapel for a year. The district manager okayed the plan then learned to his chagrin that an accident he had been in had occurred just after the contest began. Consequently, he was the first man in the district to become an eight-ball wearer.

Compressor station employees have learned that the supervisors' meetings provide a valuable opportunity to discuss the proper care of tools and equipment. Supervisors visit other stations and are spurred on by what the other fellow is doing. A safety calendar with each employee's name is posted at every compressor station and each man places a gold star opposite his name for every day without an accident. His supervisor puts a blue star opposite the employee's name on any day he suffers a non-disabling injury. If an employee has a lost-time accident a red star goes up opposite his name for each day off. Competition is understandably keen.

At one time, compressor station employees were having trouble with their hands after working with safety solvents. The problem was taken to the safety director. Through the help of the Group's Health Department a standardized detergent and work cream were selected.

The entire Pittsburgh Group is stressing standardization for safety and increased employee efficiency. There is now a standard place in all company vehicles for dramatic safety reminders. Employees now use one standardized type of all-purpose safety goggles, one type of bonding clamp for all pipe sizes, the same type of safety shoe guard. Many other items such as vehicle turn signals, flashlights and batteries have been standardized. Employees now purchase their safety shoes at reasonable cost through a special payroll deduction plan.

Department heads have initiated the practice of writing personal letters to each supervisor. They congratulate him for a good safety record and bring to his attention any room for improvement. The safety records of each division are published monthly and distributed to all supervisory personnel. Each accident is listed together with the name of the supervisor and the employee concerned. Safety is an important item on the agenda at monthly meetings of top management.

Supervisors' meetings in the transmission department have resulted in wider use of bonding cables and increased use of fire extinguishers on construction jobs. Exit ladders are placed in each trench excavation. Every foreman on every project is thoroughly conscious of the economic and human values of safety. It is something of a shock to see rough and tough pipeliners acting like fathers to their men.

Throughout the Pittsburgh Group, employees are encouraged to submit safety suggestions.

"Employees are eager to cooperate if they know that you are interested and have an open mind," Safety Director Kelliher reports.

Among the suggestions that have been adopted are inexpensive homemade wheel chocks for vehicles and air compressors, and the Tustin meter clamp (named for an employee) to

INDUSTRIAL ACCIDENTS

	Lost time Injuries	Frequency	Manhours Worked
1951	55	8.28	6,640,911
1952	51	7.52	6,784,263
1953	8*	1.15*	6,951,148*

MOTOR VEHICLE ACCIDENTS

	Number	Frequency	Miles Traveled
1951	150	1.54	9,726,550
1952	149	1.38	10,782,054
1953	117*	1.04*	11,284,366*

*** (Note improved safety record in 1953, despite increase in manhours worked and miles traveled over 1952.)**

safely by-pass stray current on the line when connecting or disconnecting gas meters.

Maintaining a high degree of employee interest in safety is a full time job. It requires the use of local safety committees—cells of safety-conscious workers—and regular meetings of local employees. Also widely used are bulletin board notices, safety slogans, safe practice manuals, a safety news bulletin, and special safety articles in the Groups' popular employee magazine *News & Views*. Annual contests are run on industrial safety in August and safe driving in January.

Whenever a district or operating group chalks up a good safety record, certificates of accomplishment are presented. These recognition ceremonies go a long way toward drawing individual workers into the program and holding their interest. They also afford an excellent opportunity for picture taking with a subsequent story and photo-layout in the employee magazine, as well as publicity in local newspapers.

Gas company management and employees in Pittsburgh know that safety pays off. They know that it is common sense to be safe—it's good working practice—good business management.

This year, the Pittsburgh Group Companies are concentrating on maintaining their hard-won gains. Their biggest job now is to cut down the number of near-accidents—those situations which if not corrected might some day result in serious loss of time and money.

SAFETY— WHAT THE SUPERVISORS ARE SAYING

Distribution District No. 3 with approximately 70,000 customers is typical of the Pittsburgh Group Companies. District 3 employees have worked more than 700,000 manhours without a disabling accident. They had an excellent safety driving record last year. Once a month the supervisors come in from outlying territories and meet in the home service auditorium at New Brighton, Pennsylvania. Safety is high on the agenda.

Accompanied by the safety director and the assistant employee relations director of the Group, the *Monthly* editor dropped in on the District's first meeting of 1954. When Manager O. O. Todd enthusiastically gave us the floor, we asked the supervisors this question:

"Why, in your own words, has your safety program been so successful?"

Here are some of the answers:

- "I don't think a day goes by that I don't say something about safety in the shop."
- "Safety meetings every week are doing a lot to help. Management is showing the fellows that we have a good safety record and nobody wants to be responsible for hurting that record."
- "The interest that top management has shown in accident prevention has a lot to do with our safety record."
- "Good bulletin boards on safety are a big help."
- "Pep talks by the safety director have played an important part."
- "Biggest contributing factor is employee safety meetings. We've convinced employees that we're doing everything possible to prevent accidents."
- "Safety has become contagious."
- "I'm a firm believer in our district's contest with each driver wearing an eight-ball in his lapel if he has an accident."
- "Assistant vice-president in charge of distribution attended supervisors' meetings and lit a firecracker under us."
- "Interest and alertness of supervisors has prevented many losttime accidents."
- "We have sold employees that they are an integral part of the safety activity. They no longer hesitate to make suggestions."
- "We're keeping safety on everyone's mind all the time."
- "We kid about it, but the fellows really don't like to wear an eight-ball."
- "We've convinced employees that they benefit by safety."
- "We're now looking at safety objectively—in terms of rendering a service to each other."
- "The men don't want to get hurt and spoil the record."
- "Not only are supervisors pushing employees on safety but, most important, employees are pushing each other."
- "Our safety program which has come down through top management is helping us to develop new practices that will give customers the safest gas service in the country, even in the world."

Fluid gasification of oil to produce utility gas

a PAR activity

A STUDY of the application of fluid cracking techniques to high-Btu oil gas production is presented in the Institute of Gas Technology's Research Bulletin No. 16, "Fluid Gasification of Oil", by J. M. Reid, W. J. Merwin, C. G. von Fredersdorff, H. R. Linden and E. S. Pettyjohn. The work was conducted by IGT under the sponsorship of American Gas Association's PAR (Promotion, Advertising and Research) Program.

Fluidization studies were carried out in small-scale laboratory units. The most promising materials were tested for these desirable characteristics as heat-transfer media: (1) high thermal conductivity, (2) high specific heat, (3) high density, (4) high softening point, and (5) resistance to attrition. Of several commercially available materials meeting these requirements, dehydrated silica gel was chosen for pilot plant tests.

Fluid gasification studies were made with a two-barrel per day pilot unit in which both distillate and residual oils were gasified. It was found that, in a fluid bed reactor using a given heat-transfer medium, the process variables which affect the results of gasifying oils are similar to those controlling gasification results in other types of equipment. The gasification results in the fluid pilot plant are in close agreement with the predicted results based on the fundamental oil gas correlations presented in IGT Research Bulletin No. 12, "Selection of Oils for High Btu Oil Gas", by H. R. Linden and E. S. Pettyjohn.

A.G.A. wins seal of approval suit

More than 30 million families throughout the United States who use gas appliances bearing American Gas Association's Seal of Approval are protected through a recent decree of a United States District Court in San Francisco. Resulting from a suit first instigated by the Association in September 1953, this decree enjoins the defendants, gas water heater manufacturers and distributors, from unauthorized use of the Association Seal. This seal certifies that appliances carrying it have passed rigid tests and conform to national standards of safety, durability and performance.

In addition to protecting current gas appliance users, the decree will also serve to safeguard the interests of future gas industry customers who purchase about six million gas appliances each year.

The defendants are Jud Whitehead Heater Co., Judson J. Whitehead, Jr., the Electric Kitchen Appliance Co., and the Hynes & Cox Electric Corp., all of whose activities in the gas business are carried on principally in California. They were found by the court to have "repeatedly used, affixed or displayed the certification trade-mark (of American Gas Association) upon gas water heaters manufactured, produced, assembled, or distributed by said defendants, which gas water heaters have not been tested or approved by the plaintiff."

The court also found, among other things, that the defendants had made or sold untested and unapproved water heaters "which did not comply with the safety standards and requirements of the plaintiff and which were unsafe, inefficient and unfit for use by the ultimate consumers or users of said gas appliances."

As a result of this action, the defendants were ordered to cease using the A. G. A. certification trade-mark or any imitation or reproduction thereof, on any water heaters or other gas appliances made or sold by them unless such use is actually authorized by A. G. A.

Right to inspect

The defendants were further ordered to surrender to the Association all material and advertising displaying the approval seal and all plates or molds used to make them. They were also instructed to remove the seals from all gas water heaters or other gas appliances made or assembled by them. The Association further was accorded the right to inspect the defendants' premises at any time to determine compliance with the court order.

Other important parts of the decree provide that the defendants were to furnish the Association with the names of all persons selling their products and a complete list of the recipients of their gas water heaters which illegally carried the seal. Finally, the defendants were ordered, within 30 days after submitting such lists, to notify such recipients that these heaters had not been approved by A. G. A., do not meet its standards or requirements, and are not authorized to bear the seal of the Association.

Display of the Association's certification trade-mark on unauthorized equipment is a violation of the Lanham Act covering trade-marks and certification marks and this suit was among the first proceedings brought under the certification trade-mark provisions of that Act.

More than 95 percent of all gas appliances sold each year carry the A. G. A. Seal of Approval. Such appliances must conform in every detail to models that have been rigorously tested at the A. G. A. Laboratories in Cleveland and Los Angeles. These tests are based upon national requirements set by the gas industry which have been adopted by the American Standards Association.

As many as 500 tests are provided for some appliances in order to determine that they meet the rigid requirements for safety, durable construction and satisfactory performance established by the industry and the American Standards Association. These requirements are drafted with the aid of such national organizations as National Safety Council, U. S. Bureau of Health, National Fire Protection Association, National Bureau of Standards, American Home Economics Association and others.

A. G. A. Laboratories were established by the gas industry voluntarily more than 28 years ago for the purpose of performing a national testing service for the protection of the country's gas consumers.

Representation from 31 states, Canada and Washington, D. C.: (seated, l. to r.) Maryland, Michigan, Kentucky, Nebraska, Minnesota, Texas, Iowa, Wyoming, West Virginia, Ohio, Canada, New Jersey, Arkansas, Illinois. Standing: Connecticut, Wisconsin, New Mexico, Oklahoma, Virginia, Washington, D. C., Tennessee, Mississippi, Louisiana, Florida, Indiana, Missouri, California, Rhode Island, Pennsylvania, Colorado, New York, Georgia and Arizona

Home service views why & how of sales

Columbus Ohio railroad and airlines terminals were bubbling over with new ideas as delegates from 31 states, Washington, D. C. and four Canadian provinces departed from the Seventh Annual A. G. A. Home Service Workshop held in Columbus, January 18-20.

Mary E. Huck, general home service director of The Ohio Fuel Gas Company and chairman of the Home Service Committee, presided at the conference.

Headquarters for the Workshop were at the Deshler Hilton Hotel with the Tuesday programs held in the home service department of the gas company.

With continuing emphasis in home service on promotion the Program Committee included a group of subjects under the symposium heading, "It's Worth Doing". Subjects were: "Calico Cooking Carnival", "Foreign Flair and Flavor", "Flings and Festivals", "Fare for Fairs", "The Wife-Saver Kitchen", "Cookery Do" a club program, and "It's Dynamite" for dealers. Participants were: Lolita Harper, The Cincinnati Gas and Electric Co.; Dorothy O'Meara, The Bridgeport Gas Light Co.; Virginia Belden, Natural Gas Service Co.; Julia Hunter, The Lone Star Gas Co.; Mrs. Eleanor Wiese, Public Service Electric and Gas Co.; Mrs. Dorothy Pearson, The East Ohio Gas Co. and Vivian Marshall, New Orleans Public Service Inc.

In opening the conference Mary Huck discussed "The Why and How". With the Workshop a training course in home service and with an audience of 60 percent "first timers", she outlined why the gas company maintained a home service

Head table at the Workshop's Monday conference-luncheon included (l. to r.): Jessie McQueen, Mrs. Pauline Tresch, F. A. McFerran, Elizabeth Lynahan, E. D. Bivens, Irene Muntz, Allan W. Lundstrom, Mary E. Huck, Gladys Price, E. C. Overbeck, Dr. Elaine Weaver, Eleanor Morrison, Ray Little, Ann L. Olson, Flora Dowler

Wednesday program participants: (l. to r., seated) Mrs. Doris Forebaugh, McQueen, Dr. Gladys Branagan, J. G. Berwanger, Mrs. M. L. Bohn, Mrs. Fisher, Gordon Jones, Mary Huck. Standing: Helen Kiess, Mrs. Mabel A Marie O'Brien, Loreen Jacobson, Mrs. Hulda Wells, Daisy Davis, Hayes

...s range replacement and school demonstration: (l. to r.) Peggy Shaber, ...awnee, Okla.; Mrs. Betty Headley, Savannah; Mary Howard, Oklahoma ...y; Elizabeth Boyle, Minneapolis; Mrs. Marjorie Snouffer, Columbus

Good results in Gasco Food Institute Demonstration are appraised by: (l. to r.) Grace White, Family Circle Magazine; Chef E. B. Clark, Harriet Wolfe, Chef J. M. Parker, and Mildred Dunn, all The Ohio Fuel Gas Co.

department, why certain programs are carried on, why it is important to keep alert to new developments in promotion and homemaking, why a Home Service Workshop is important. From there, Miss Huck discussed how benefits can be secured from the Workshop and how a good 1954 home service program can be accomplished. Among her suggestions for the year were "set a goal for the year, set up a program of work, organize your department, strive for better training of personnel, work closely with your sales or promotion department, get acquainted with your dealers, be alert to fresh ideas, approach 1954 with enthusiasm. Miss Huck classed enthusiasm as the priceless ingredient that is needed in selling customers, department and management.

Five home service directors were part of the first morning's program given over to discussion of school contacts. Elizabeth Boyle, in the suburban division of the Minneapolis Gas Co., outlined a recipe for a good school program, outlining the subject of replacement of equipment as requested and stressing important points to be kept in mind in giving service and demonstration of this equipment to school personnel.

"Our Magic Hat" was a demonstration on care and use used this year in the properties of The Ohio Fuel Gas Company and described by Mrs. Marge Snouffer.

In "We Bring The Classes To Us", Mrs. Betty Headley told of the program used in the Savannah Gas Company for student classes throughout the city. The students are brought by the gas company bus to the home service auditorium and returned during the class period.

"A Rosy Future" was the description of the school program in the Oklahoma Natural Gas Company by Peggy Shaber. The second part of the two-part school program in this company was explained by Mary Howard who developed the new program of "Teacher Institutes".

In charge of an exhibit of these promotion ideas was Mrs. Barbara Haller of The Ohio Fuel Gas Co. in Columbus.

During the Monday afternoon session, Dr. Elaine Knowles Weaver of Ohio State University and nationally known in the field of laundering presented with illustration new developments in phases of home laundry operation. The washing of modern fabrics, the need for adequate, hot water and the

...l committee members handled details of Workshop hospitality and regis... (seated, left to right) Mrs. Ruth Stewart, Mrs. Laura Piepgras, Henriette ...g and Marjorie Chandler. Standing: Jeanne Snodgrass, Marjorie Bettes... Vivian Marshall, Mrs. Kathryn Johnson, Frieda Barth and Virginia Stacey

Symposium speakers discuss home service projects in Ohio Fuel demonstration kitchen: (l. to r.) Virginia Belden, Coolidge, Ariz.; Dorothy O'Meara, Bridgeport, Conn.; Mrs. Dorothy Pearson, Cleveland; Vivian L. Marshall, New Orleans; Mrs. Eleanor Wiese, Newark, N. J.; Julia Hunter, Dallas, and Lolita Harper, Cincinnati

choice of detergents were phases discussed in this presentation.

"Dirty Work in the Laundry" was the subject of a skit presented by the Ruud Manufacturing Co., introduced by F. A. McFerran, general sales manager and presented by him with two of his assistants and Dorothy Farrell of The Manufacturers Light and Heat Co. in Pittsburgh. The skit pointed out the important factor of quick recovery water heaters as important in providing adequate hot water service in home laundering.

"For Only a Penny a Load" was another skit which was presented by Flora Dowler and Dorothy Farrell of The Manufacturers Light and Heat Company.

Workshop speakers inspecting range in Ohio Fuel demonstration kitchen (l. to r.): Ruth Beard, Ohio State University; Mrs. Barbara Haller, Columbus; Marion Viall, Grand Rapids; Dorothy Farrell, Pitts.; Mildred Clark, Tulsa, Eleanor Morrison, Grand Rapids

The afternoon was concluded with an interesting panel of speakers directed by the moderator Irene Muntz, Rochester Gas and Electric Corporation.

In home service programs today, two audience groups are being given particular attention: the large-audience cooking school and the program for organized club groups. In "Fairyland of Food", the workshop audience saw part of a typical Gasco Food Institute demonstration given by Mildred Dunn, Harriet Wolfe, E. B. Clark, and J. M. Parker of The Ohio Fuel Gas Company. The gas company arranged to have in Columbus the portable kitchen used for these large theatre schools.

The club demonstration was presented by members of the home service department of the Michigan Consolidated Gas Co., Grand Rapids. Eleanor Morrison, as director, outlined the purpose and rewarding results of cooperation with organized groups who meet in the gas company auditorium on a prearranged schedule to conduct their club meetings. These are preceded by a 20-minute home service demonstration, followed by refreshments. Marion Viall, assistant home service director, conducted the current demonstration used in this company. Another typical club group demonstration on equipment was the subject of a paper by Kathryn L. Barnes of the Equitable Gas Co., Pittsburgh, entitled "Laun-dri-Quiz".

Contributing to the subject matter phase of the Workshop program were four speakers from outside the industry. Grace M. White, food editor of *Family Circle* Magazine, discussed useable ideas in demonstrations for working home makers; Ruth Beard, in the equipment department at Ohio State University, with the subject, "Be Right Before You Buy Knives", gave an illuminating picture on points to look for.

"Feasting the Eyes" described well the slides of photographic techniques shown by Mrs. Mabel Anderson, director of home economics of the Chicago office of J. Walter Thompson Company. With many home service departments preparing and using slides for talks before groups outside company headquarters, Mrs. Anderson's talk included adaptable ideas. As one of the luncheon speakers, Helen Kiess of the Ohio Bell Telephone Company pointed up little things that make the most of telephone inquiries in making friends for the company.

Mrs. Mary Louise Bohn of the Laclede Gas Co., St. Louis, summarized the current activities of home service in different companies to tie in with the Mrs. America contest program. TV commercials in bringing gas equipment to the seeing audience were discussed by Mildred R. Clark of the Oklahoma Natural Gas Company. Hayes S. Walter, A. G. A. Commercial Cooking Representative, gave the first public showing of the new slide film tour of "Outstanding Commercial Kitchens".

Two luncheon meetings were important factors in the Workshop program. Allan W. Lundstrom, president of the Ohio Fuel Gas Company, gave "A Welcome to Columbus" and outlined his reasons for the active support given to home service work in his company. Gladys B. Price of the Southern California Gas Co., with the subject, "Be the Master Key," adapted the results from the survey conducted in her California company to determine what women are thinking and why, about gas company service and equipment. Pointing up some of the factors in this "attitudes" survey, Miss Price made several concluding observations: "Let's have demonstrations and more demonstrations but let's slant them to each particular group. Women want to be shown, not told. . . . Women customers can be divided in two groups: the younger ones, buying equipment for the first time, and the others who comprise the replacement market. To all we need to emphasize the appearance of the equipment, what it will do, and for the older group, the new developments in food preparation and foods to interest her in new equipment."

"You and the Gas Industry" was the subject discussed by Gordon M. Jones, general sales manager of the United Gas Improvement Co., Philadelphia, at the concluding luncheon. He pointed up the gas industry as the fastest growing U.S. industry and outlined the place of a hypothetical home service career in this fast-growing industry with 27-million customers. Identifying the way in which different home service programs were contributing to sales promotion, to school contacts, to public relations, Mr. Jones stated, "This new, aggressive gas industry is going places in a big way. New and additional supplies of gas are here or available. New and improved appliances are here or coming. The

(Continued on page 36)

Prepared by A. G. A. Bureau of Statistics

The general downturn in business experienced during the fourth quarter of 1953 is reflected in the lower level of gas appliance shipments and in reduced utility gas sales for the month of November. The Federal Reserve Index of industrial production for the month of November was 130 (1947-49=100). This was 2.3 percent below a year ago. The revised Federal Reserve Index relates to a more recent base period thereby enabling a more intelligent analysis of present-day conditions. The revision also reflects the addition of new industries and products which were either non-existent or of lesser importance in the economy during the earlier base period.

Shipments of gas ranges during December aggregated 132,400 units, 25.9 percent lower than in the comparable month a year ago. Although gas range shipments in the prior month fell 19.3 percent below November 1952, electric range shipments were 26.8 percent lower during this same period. The ratio of gas to electric range shipments during November was 2.4 which is considerably better than the average ratio of 1.7 reflected in the first 11 months of the year.

Unit shipments of gas water heaters totaled 141,000 in December, off 21 percent from the comparable month in 1952. Declines were also reported for shipments of gas-fired central heating equipment. New housing starts during November and December were 7.1 and 4.9 percent lower, respectively, than in the same month a year ago. The decline in the number of housing starts since mid-year is undoubtedly a significant factor in these declines.

Appliance data shown in "Facts and Figures" relate to manufacturers' shipments and represent operations of the entire industry. These data are compiled by Gas Appliance Manufacturers Association; more detailed statistics are available from that organization to any utility, upon request. Industrywide electric appliance statistics are based on data compiled by National Electric Manufacturers Association, and are reprinted by GAMA in their releases.

Total gas sales by utilities and pipelines for November 1953 were 1.8 percent less than sales in the comparable month one year earlier. This was the second successive month that utility gas sales declined, after 16 consecutive months of increases. Although sales of gas to industrial users were up 7.5 percent over the comparable period, the lowered househeating demand, due to unseasonably warm weather experienced in most sections of the country, more than offset this gain.

1953 SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES

(WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF 1952)

	December		November		January through November	
	Units	Percent Change	Units	Percent Change	Total Units	Percent Change
RANGES						
Gas	132,400	—25.9	150,500	—19.3	2,052,800	+ 2.8
Electric	n.a.	n.a.	63,700	—26.8	1,221,500	+27.2
WATER HEATERS						
Gas	141,000	—21.05	151,900	— 9.1	1,980,800	+14.4
Electric	n.a.	n.a.	46,500	—23.7	731,200	+11.3
GAS HEATING						
Furnaces	n.a.	n.a.	43,700	— 2.7	480,100	+14.8
Boilers	2,950	—24.4	5,700	—19.7	68,900	+ 6.7
Conversion Burners	7,800	—12.4	15,600	—14.8	203,900	— 6.7

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING NOVEMBER

(MILLIONS OF THERMS)

	1953	1952	Percent Change
NOVEMBER			
All types of gas	4,644	4,729	—1.8
Natural gas	4,387	4,462	—1.7
Other gases	257	267	—3.7
TWELVE MONTHS ENDED NOVEMBER 30			
All types of gas	56,065	51,915	+8.0
Natural gas	52,818	48,579	+8.7
Other gases	3,247	3,336	—2.7

PERTINENT BUSINESS INDICATORS, DECEMBER 1953

(WITH PERCENT CHANGES FROM CORRESPONDING PERIOD OF 1952)

	December	Percent Change	November	Percent Change
Industrial activity (1947-49 = 100)	n.a.	—	130	— 2.3
Consumer prices (1947-49 = 100)	114.9	+ 0.7	115.0	+ 0.8
Housing starts, Non-farm (thousands)	68	— 4.9	80	— 7.1
New private construction expenditures ($million)	1,908	—25.2	2,052	—28.2
Construction costs (1947-49 = 100)	134.7	+ 4.0	134.8	+ 3.9

This display was installed in Philadelphia dealer windows free of charge as part of Philadelphia Gas Works dealer support in Double Duty Disposer campaign

Challenge of the gas incinerator

By HAROLD ZEAMER[1]

Formerly Sales Promotion Manager
Philadelphia Gas Works Division
The United Gas Improvement Co.

It is a long time between new domestic gas appliances. Yet since the War, they have been coming faster than we might realize—the rotary-type clothes dryer, the "built-in" or modular ovens and top burners (you would not consider the merchandising problems and avenues of their promotion identical with the free-standing range, or would you?) the combination washer and gas dryer (it burns gas, doesn't it?) and air-conditioning. And now the gas incinerator is emerging as an acceptable, new load builder.

The incinerator has grown in importance in a matter of two or three years. At the last count, there were at least 25 brand names of various manufacturers already in the business, and the list grows with each printing of the A. G. A. Directory of Approved Appliances and its supplements. Some are old familiar names to us. Others are new. More major markets are opening up for the wider promotion of the gas incinerator—Cleveland, Detroit, Indianapolis, Dayton, Philadelphia, and numerous others. Customer acceptance is coming fast. The incinerator does an essential service for the home; the price and the terms are right for mass appeal.

It is self-evident that *gas utilities will be forced into a promotional program on gas incinerators if they have not already started one.* It will be impossible to ignore the enthusiastic sales efforts of numerous manufacturers or to be casual about the customer's desire for this new convenience.

So there's nothing new under the sun? Sure there is, for those who will look around and take advantage of the load-building possibilities of these *new gas appliances.*

Promotion of the gas incinerator presents an excellent opportunity for effective sales planning. Here is an appliance that has no historical "barnacles" of merchandising. Its sales future and its merchandising pattern have yet to be proved; it is neither a "plumbing item" nor a "white goods item." Anyone can sell it—its installation and servicing present no major problems.

There are many new names among the growing number of manufacturers of gas incinerators. They are not familiar with some of the merchandising and promotional habits of gas utilities—they are anxious to develop business quickly, to advertise and promote with substantial sums of money at the local level. We must plan to capitalize on this refreshing attitude.

There is also sufficient evidence available to guide us from the pioneers in

[1] Shortly after preparing the above article, Mr. Zeamer left Philadelphia Gas Works to become associated with Richmond Radiator Co., Philadelphia.

[2] See also the valuable A. G. A. booklet "Let's Get Down to Brass Tacks on Gas Incinerator Sales." Limited number of copies available from A. G. A. Headquarters at 25 cents each.

Cleveland and Detroit. *The industry owes these aggressive utilities a vote of thanks for showing us that it can be done.*

It is timely, too, to plan for the promotion of the gas incinerator, because we have the A. G. A. "Pattern for Profit"[2] to guide utility sales executives into a new experience in dealer relations. Assuming we have made mistakes on other appliances in the past, the new gas incinerator presents the one glowing opportunity to sit down with "Pattern for Profit" and make a fresh start in effective sales planning and take a new look at dealer sales.

One of the first steps in effective planning is the establishment of some principles and goals, and to consider ways and means of attaining these goals. How much money can you afford to spend? Can you stretch it to $10 a unit? (Some of the manufacturers will invest that much and more!)

What will be your goal for sales in the first year, the second and the third? How can you motivate as many manufacturers as possible to come into your market to help develop sales of their brands? How can you encourage every major wholesale agent in your market to stock and promote incinerators? How can you get wide dealer coverage? What form of customer persuasion can we use to develop volume sales to meet our budgeted goals? Out of the total budget, how much should be spent on each of these phases?

Planning is the sole answer. *A well-conceived plan on the part of the gas utility is the insurance policy of success that manufacturers, distributors, and dealers will be willing to buy.*

First things first

I mentioned that gas utilities are likely to be forced into a gas incinerator promotion because of the great number of manufacturers pressing for business and the customers' desire to buy. To a certain extent, this was true in Philadelphia. Manufacturers began to canvass distributor or wholesale agents in the local market to take on their gas incinerator for resale to Philadelphia dealers. The local wholesalers began to ask these questions:

Is the gas company interested in the gas incinerator?

Is the gas company prepared to help introduce this new appliance to the local buying public?

Will the gas company help train dealer salesmen to sell this item?

Will the gas company retail these through their sales floors and outside street sales force? If so, what are my chances of selling them?

Will the gas company service gas incinerators, regardless from whom the customer buys it, as they do on other gas appliances?

Needless to say, without the assurance of PGW that there would be a program promoting this new incinerator, there existed a log jam in the most important first step of any program. Many manufacturers are strongly represented by local wholesale outlets and have an equal opportunity with other manufacturers to develop their brand acceptance.

A program was designed during July and August, and an invitation was extended to every then-known manufacturer to attend a meeting in Philadelphia on September 16. Many of them sent a sample gas incinerator for display. Also invited to this conference was every important wholesale agency in Philadelphia: independent appliance distributors, wholesale plumbing supply houses, factory branch office personnel, and factory representatives.

PGW personnel went over all the details of the PGW program, the proposed timetable, and answered many questions that were raised. Approximately 250 people attended this meeting. A strong appeal was made that the manufacturers

Mr. Zeomer, formerly sales promotion manager, Philadelphia Gas Works Division, addressing disposer kick-off meeting for dealers

Dealers examining some of more than 20 different brands of Gas Double Duty Disposers at the kick-off meeting. Manufacturer representatives supplied details

A. G. A. materials such as "Deal in the Dealer" provide a glowing opportunity to make a new start in effective sales planning

and distributors take this plan, study its possibilities and conclude, as quickly as possible, their contracts between them for the sale of gas incinerators in Philadelphia. The response was immediate and beyond our most enthusiastic guess. *Every manufacturer of importance and every wholesale outlet of any stature is represented in the Philadelphia market for the sale of gas incinerators.*

If you subscribe to the policy that the gas utility must provide promotional leadership in the local market *for a new gas appliance*, then you will set aside, as PGW has done, a substantial budget for customer advertising. Under the PGW plan, there are three phases of the *basic* customer campaign and an additional sum allocated toward support of manufacturer-wholesaler-dealer "brand name" customer advertising.

In the basic campaign, PGW has contracted for a television show, using high quality, half-hour film productions with Hollywood talent, on a leading station, "Sunday at Seven." Participation is being sold on this program on a 50-50 basis to gas incinerator manufacturers, using local dealer tie-ins. Commercials are done on the various brands on a rotating basis.

A second phase of the basic campaign to predispose more customers to buy is a special section on incinerators in a leading local paper. The paper canvasses the manufacturers, distributors and dealers for ads, and guarantees to run 25 percent more additional space with pictures, publicity articles and stories about incinerators and brand features. *It is expected that there will be a 12-page section devoted exclusively to gas incinerator advertising and copy.*

About 3,000 of these sections will be mailed to all dealers, pointing out to them the evidence of support the manufacturers, distributors and PGW are giving to their incinerator business, and encouraging them to get into the business, if they have not already done so.

The third phase of the basic advertising program is the design and use by PGW of a four-page, tabloid size, door-to-door piece. Participation in this tabloid is sold on a 50-50 cost basis, because the first two pages are general gas incinerator copy which is "boiler-plated" for all brands and all dealers. The third page is a brand feature ad. The fourth page is for the dealer's story, his name and address. This piece can be produced rather cheaply and is distributed door-to-door by a professional contractor. It has

the advantage of not only being inexpensive, and therefore desirable for smaller dealers and manufacturers, but also it is easily sold. The dealer can request its distribution in an area of his choice where he has the chance of getting the best sales results, and it is his message exclusively.

In order to encourage wider brand name, local advertising, PGW sales management subscribes to the policy of paying a share of manufacturer-distributor, or dealer approved copy in approved media. The PGW share is 25 percent. The advantages of this policy are almost too numerous to mention, but three important ones are: (1) it rewards proportionately those brands which go into a local, customer advertising program; (2) it provides the utility with an advertising leverage, by stretching its dollar along with those of others (and often at a lower local rate per line), and (3) a utility check for advertising participation is persuasive evidence in the dealer's pocket of the utility's financial support of and interest in his promotion.

In addition to these major avenues of customer promotion, PGW will be using the normal utility channels for promotion of gas incinerators:

(1) Bill stuffers to 565,000 customers.

(2) Truck posters on company vehicles.

(3) Commercial plugs on incinerators at all cooking demonstrations.

(4) Wide use of incinerators as customer prizes at such promotional events as cooking demonstrations, dealer openings, TV shows.

What's in a name?

Generally, there are two schools of thought with respect to the names of the gas incinerator. Several manufacturers have taken the word "incinerator" and made an adaptation of their brand name from it. Others have chosen to call their models "disposal units." In Philadelphia, there has been publicity and argument by interested parties over the location of municipal incinerators to dispose of the Street Cleaning Department's collection of trash and garbage.

In searching for a "theme" or a name that would avoid any unfavorable association in the public's mind, PGW will be using the term *"Gas Double Duty Disposer."* This term has the competitive twist in the use of "Double Duty—gets rid of both—Trash *and* Garbage," and provides a local promotional vehicle, upon which all manufacturers can ride with their own brand name promotion and advertising.

Dealer phase

It has been mentioned previously that the Gas Double Duty Disposer has had no past history of mass selling that labels it as either a plumbing item or as a white goods dealer appliance. It was also felt by PGW sales management that the ultimate attainment of a successful program required the wide franchising, display, and sales support of practically every retail outlet that could conceivably be a prospect.

With this goal in mind, two important steps were taken to interest dealers in selling Gas Double Duty Disposers. Every manufacturer attending the September meeting was asked to give PGW 3,000 specification sheets. A mass mailing of a dealer brochure was made during October to every retail plumber, heating contractor, appliance dealer, department store, furniture dealer, warm air or sheet metal contractor—3,000 in all.

This brochure had these important messages for the dealer:

(1) Announcement of the new gas appliance as another profit opportunity for dealers.

(2) Customer advantages of the Gas Double Duty Disposers.

(3) Disadvantages of the sink grinder.

(4) A strong appeal for dealers to become franchised with an appropriate brand and distributor.

(5) PGW's plans to help them, as well as PGW's assurance of a customer advertising campaign.

(6) A "Wholesale Buyer's Guide," indicating the brands available in the Philadelphia market, and the wholesalers thereof.

(7) Twenty specification sheets of those manufacturers who choose to give them to PGW.

This mailing became the dealer's "assurance" from PGW that this was an important promotion, with many phases of utility support. It removed any doubts that might have arisen about PGW's attitude toward this new appliance, and permitted distributors to proceed with dealer franchising, and sampling under the most favorable circumstances.

The second important step in interesting new retail agencies to sell the Gas Double Duty Disposer was the effective use of PGW's dealer contact staff of eight men in contacting those dealers, where the prospects of these dealers having door-to-door salesmen were good. Every storm window and insulation dealer was approached, and many large organizations with anywhere from ten to 50 salesmen were signed up. Home improvement contractors were similarly encouraged to participate with equal success.

Meetings were arranged with the larger coal dealers and oil burner sales and service organizations. The approach to these special dealers was along these lines: "The Gas Double Duty Disposer is not competitive with anything you sell. Your fuels do not enjoy a similar appliance application for the home, so join PGW in the promotion and sale of this new gas appliance—it will add profits for you as owner and will supplement your salesmen's income."

It is PGW's goal that 2,000 retail agents, of all types, will be selling Gas Double Duty Disposers, 500 of which will have effective floor displays. The principal PGW dealer contact efforts will be directed to those dealers having door-to-door salesmen.

Package plan

In order to obtain dealer support of the program, PGW offered manufacturers and their distributors the "Special Package Plan." There are two phases: (1) encouraging dealers to use a Gas Double Duty Disposer in his home and thereby endorse its sale through his personal experience, and (2) rewarding dealers for displaying at least one unit on their floors and making a minimum sales effort during 1954. If the dealer will buy two Disposers and fulfill these two conditions, then PGW rates him as a "qualified" dealer, and he receives the financial benefits of the PGW special package plan.

The term "Qualified" Gas Double Duty Disposer Dealer will be applied to those dealers who have complied with the following two minimum requirements:

(1) Dealer must have *Philadelphia sales showroom* with at least one Gas Double Duty Disposer displayed for customer exposure. Dealers in the immediate suburban area, whose showrooms are

(Continued on page 47)

What steps can the gas industry take to control accidents and reduce casualty insurance losses?

Kill the cause and cut the cost

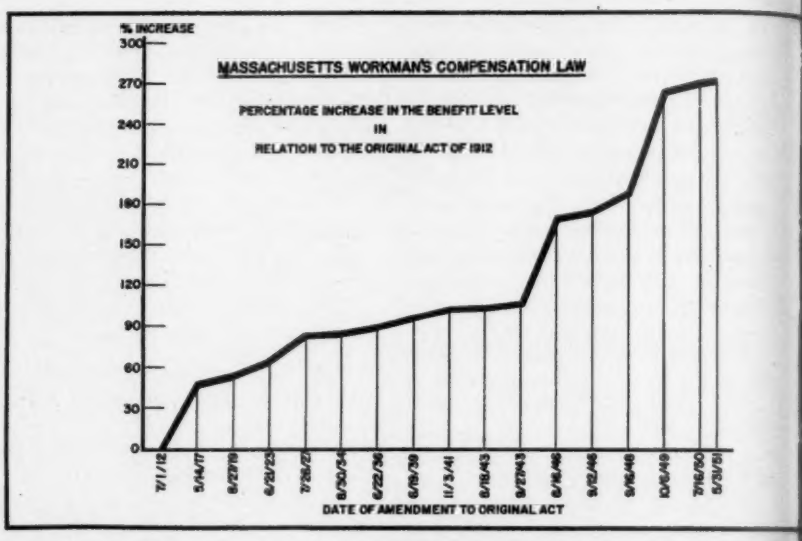
By W. B. JOHNSTON

Safety Consultant
Marsh & McLennan, Inc.
*Boston, Mass.**

Gas utilities in New England are facing insurance costs that are continually rising. This is true of all industry. These increases are partly due to increased benefits under the compensation acts of the several states, higher medical costs, more liberal interpretations of the compensation acts, a greater claim consciousness of the public and more liberal awards in our courts.

Industry is aware of these, for high losses from employee accidents, automobile accidents and public accidents are reflected in the rates they pay for insurance. We, as individuals, are feeling the effect of high losses in the premiums we will pay for our automobile insurance in 1954, especially in Massachusetts. To reduce losses in industry we must eliminate the causes of the accidents that are responsible for these increasing costs.

You would tell me, I'm sure, that you have in your utilities, safety programs, very successful ones, which are achieving good results. You would tell me that under the leadership of the New England Gas Association and through these safety conferences, great progress has been made in your industry. This I would not deny, but at the same time let us not sit smugly back and assume we are getting satisfactory results when our costs are mounting.



Effect of benefit changes only in the Commonwealth of Massachusetts with respect to Workmen's Compensation Law. From inception to last change in 1951, benefits have risen 272 percent

To progress, we must not be satisfied with what we have accomplished but rather concentrate on what we must do to eliminate the causes of accidents, keep abreast of this rising cost trend and counteract it. It is a time for sound thinking. It is a time for careful appraisal. It is a time when we must make sure that we are on solid ground in our accident control programs so that our firms are not being penalized with high insurance costs.

We will all admit there has been advancement in accident control but it can be made much more effective. *Industry, as a whole, has not accepted accident control as a necessity for efficient operation. Industry has recognized it as a necessary humanitarian function but it definitely has not realized its true economic value as a means of gaining greater efficiency.*

The causes of accidents are the same as the causes of other failures that result in waste, inefficiency and increased costs of operation. Accidents result from violations of established methods and the existence of faulty conditions. If we want true efficiency in our work we must, of necessity, control accidents. Accident control is production control and we do not have effective production control unless accident control is included.

The control of accidents is not a complex procedure provided we clearly

* Insurance brokers and average adjusters. Mr. Johnston's address was presented at the 1953 safety conference of New England Gas Association in Boston. Italics in this article are the editor's.

understand it and establish a definite program in our utilities to carry it out. We must realize that a safety department, safety meetings, contests, campaigns, slogans and many other things are not the answer to accident control. Accident control is a production matter and as such, must be in the hands of those who control production, service and distribution.

A progressive gas utility has every tool it needs to control accidents. I do not worry about the future success of the control of accidents in the gas industry once the problem is understood. I do worry about those in the field of accident control not counselling the industry wisely, not being practical, not being willing to carefully analyze and appraise the problems of control in the individual company, failing to give industry concrete, definite methods to follow, and not measuring the results of the work accurately.

We must never forget that the causes of accidents are always faulty acts or faulty conditions. Faulty acts are violations of the accepted or planned method of performing given jobs. Faulty conditions are the defective mechanical or physical conditions that need repairing or guarding. These are definitely the same defects which cause the other inefficiencies that industry is continually trying to overcome. Let us review examples.

A laborer was killed while working with four other employees in a nine-foot deep excavation, uncovering a leak in a medium pressure main. He was shoveling dirt from the bottom of the hole to a ledge when flames enveloped the excavation. Cause was failure to valve off main.

An employee who was punching holes in a small brace failed to completely tighten the guide so that it slipped, unnoticed, and as a result, the holes in several hundred braces were in the wrong place. This mistake was not discovered until the assembly department was putting the brace in its place and a bolt would not go through two adjacent pieces, as holes did not line up. The cause was failure to follow the established method of setting die in the machine, securely tightening bolts of stop guide, and checking at intervals of one hundred pieces with stock sample. The causes of the production failure and the accident were both violations of procedures and the corrective action for both might well be identical.

If we were to review the fatal injuries as compiled by American Gas Association each year, we would find the vast majority result from violations of the accepted methods of doing the job. If you compiled the work failures in your department you would find the causes similar. The weakness in industry is the supervisory staff's inability to control, as fully as they must, the actions of those they supervise.

As most of our accidents result from human failures, accident control if properly established, will help greatly in detecting and correcting them. Industry therefore, should be willing, if it understands how to control accidents, to adopt true accident control for it fits into and is a part of efficient production control.

The task ahead is not great but the approach must be sound and practical. If accident control is important then we must prove it. If there are concrete methods for controlling accidents we must sell them to our industry. If we are not accurately measuring the success or failure of our control we must set up procedures to correct this condition.

Let us examine the trends in accident costs. On the accompanying exhibit are three curves showing the index based upon the average paid claim countrywide for automobile bodily injury, automobile property damage, and other public injuries. These figures were compiled by one of the largest insurance companies. The year 1941 has been used as the base year.

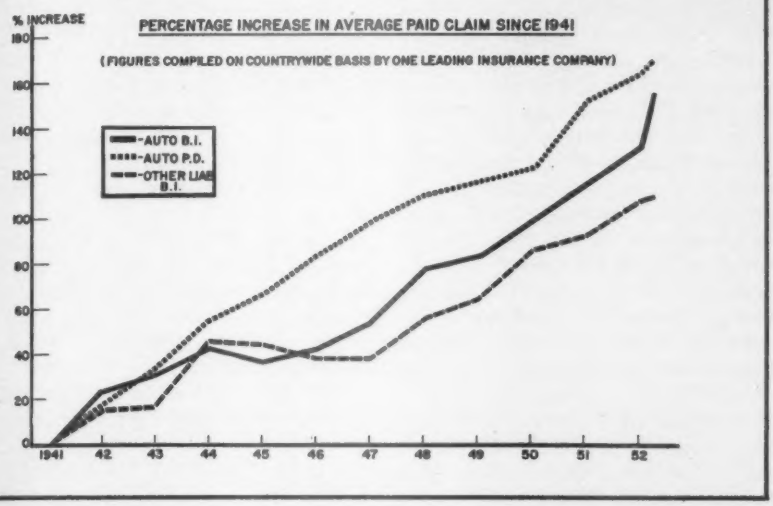
The average paid claim for automobile bodily injury has increased by the end of 1952 by 156 percent over 1941. The average paid claim for automobile property damage during this same period has increased 174 percent and other public bodily injuries have increased by 112 percent. You can see that with such increases, payment on these cases is approximately two and one-half times as much as in 1941. The result can only mean higher insurance costs.

Look at the compensation cost picture. Again, these costs have risen due to increased benefits, higher medical costs, and a more liberal interpretation of the compensation act.

In the chart on page 22 we show the effect of benefit changes only in the Commonwealth of Massachusetts with respect to the Workmen's Compensation Law. Using the date of inception as a base, the percentage of increase is shown as of the amendment dates. From the date of inception to the last change in 1951, the benefits have been increased by 272 percent.

Now consider the compensation and

(Continued on page 49)



Three curves in the chart above show the index based upon the average paid claim countrywide for automobile bodily injury, automobile property damage and other public injuries

Cincinnati Promotion talks turkey

A new and different approach: "Tom the Talking Turkey"—a handsome six-foot gobbler surrounded by gas ranges, dominated the utility's first floor lobby during this popular promotion

The Cincinnati Gas & Electric Company draws a million people each year to its 11 all-out promotions and has established a reputation for a new and different show each time. One of the company's "hottest" campaigns was the "Let's Talk Turkey" promotion last year which, according to figures just compiled, directly sold 2,800 gas ranges.

"Let's Talk Turkey" was the utility's 1953 gas range show presented in cooperation with the *Cincinnati Times-Star* and co-sponsored by the Greater Cincinnati Gas Range Association.

The promotion got off to a flying start with the opening of a display in the first floor lobby of The Cincinnati Gas & Electric Company, focal point of appliance promotional activities in the area. Prominent in the lobby was "Tom the Talking Turkey," a handsome six-foot gobbler surrounded by more than 100 sparkling new gas ranges. Three models of every brand available in the area were exhibited. To dramatize the performance of modern gas ranges, turkeys were roasted daily in stoves connected for that purpose. Carving demonstrations were given by Ann Holiday, CG&E home service advisor, and visitors received samples of the carved turkey.

During all this activity, "Tom the Talking Turkey" remained aloof and silent. On November 9, he broke that long silence, and from then until November 24, talked incessantly.

On November 9, the "Let's Talk Turkey" contest, publicized by the *Cincinnati Times-Star,* opened. *Times-Star* readers clipped a coupon, filled in their name and address, and presented it in the CG&E lobby. This entitled them to open the oven door of one of 16 gas ranges arranged in a circle around the talking turkey. The lucky contestants who made Tom talk each received a frozen turkey pie.

Participation in the "Let's Talk Turkey" contest set a new record. It was held for 12 days, and attracted the phenomenal total of 36,121 participants. On Monday, November 23, entries hit an all-time high of 6,046, only to be topped on Tuesday, the final day of the contest, by a total of 8,392. A total of 1,633 turkey pies was awarded, and once each day, some lucky person received a 12-pound, oven-ready frozen turkey. Everyone who participated in the contest was eligible to compete for the two major awards: first prize—a $250 gas range; second prize—a 25 pound turkey.

All 36,121 contestants actually had a chance to examine a modern gas range and hear all the advantages of owning one. It is estimated that approximately 70,000 persons came into the lobby.

The whole activity was supported by an intensive promotional campaign consisting of newspaper advertising, billboards, car cards and radio spots. Dealers offered free turkeys with each gas range purchased during the promotional period, and window streamers carrying that information were available for dealers' windows. There were also one and two column mats for use in dealers' advertising, as well as certificates to be presented to poultry dealers by purchasers of new gas ranges.

Here is what "Tom the Talking Turkey" said: (First four notes of Dragnet)

The story you are about to hear is true.

My name is Tom—I'm a turkey.

It's Monday—8:15 AM. A call came in on MAIN 2000. A woman was reported to be worried about Thanksgiving Day. . . . An old worn-out gas range was haunting her kitchen.

I was assigned to the case. (Dragnet music)

8:30 AM. Went over to check the range. A woman answered—she looked tired—she was home on the range. I'd like to ask you a few questions, Mam. Just for the record, Mam. It's routine, Mam. What's Cookin'?

This Flame had troubles—plenty of troubles—her old gas range was acting up again. (Dragnet music)

9:15 AM. Took her down to range headquarters on a CPA. Had her look over the new automatic gas ranges.

I *showed* her the automatic ovens—smokeless broilers—instant heat on all burners—She was amazed—so was I. I was talking turkey. (Turkey sound effects)

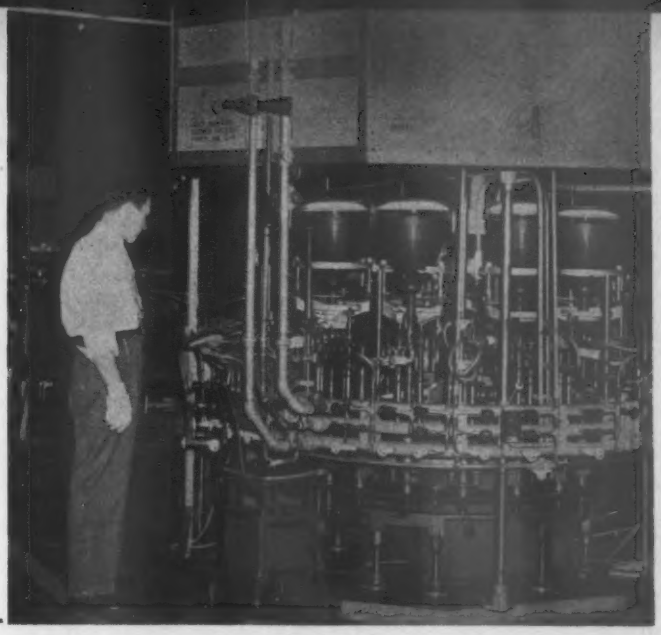
2 PM. She picked a new gas range from the line-up—it was a beauty—we took it with us.

3 PM. Back in her kitchen—We installed the new gas range. A good connection. We decided to make a test. I volunteered. There was plenty of room in the oven—they pushed me in.

(Dragnet music)

7:30 PM. The test was successful. I came out golden brown all over—even the Lieutenant said I had good taste. I'm cookin' with gas.

Trial was held in the dining room—disposed of quickly—so was I. (Dragnet music)



Gas-fired automatic glass forming machine working on TV tubes

Industry's most versatile fuel

By CHARLES C. EELES*
Chairman, Industrial & Commercial Gas Section
American Gas Association

• The story of industrial gas is truly fabulous. In the glamor of its precision applications and their effect on modern living lies the potential to convince our customers gas will do more things better in home and industry. The industrial gas story offers our best opportunity to attract the widespread attention necessary to develop public desire for greater domestic use of our service.

Today the advent of vast new gas supplies provides many sections of our country with the opportunity and the instrument which can bring an increased level of industrial activity. Inevitably, improved economic conditions and a higher standard of living will follow. Our customers will have more money for goods and services. Consumption per residential and commercial customer will rise. Prosperity made possible through industry's use of gas will be returned many-fold.

Check if you will the basic resources of those regions presently enjoying the greatest prosperity—the most rapid growth. Each has at its disposal abundant quantities of industrial gas. Areas equally favored with other resources, but lacking comparable gas supplies, do not exhibit equivalent progress. Obviously, gas has an important impact on industrial vitality.

Much of our tremendous industrial contribution to Allied victory in two World Wars sprang from processes developed around gas. Amazing new accomplishments continue to appear with every passing day. Production methods and processes not possible or presently practical with any other source of energy are available to take full advantage of gas and its unique characteristics.

There seem to be no bounds beyond which the virtues of industrial gas do not extend. It conserves our strategic metals. It increases the productivity of our manpower. It does countless jobs which can be accomplished by no other means.

The "family car"—symbol of the age in which we live—owes its present status to the ability of gas to perform critical production jobs.

Time was when the automobile's vital elements were straight carbon steel with little or no designed alloy content. They were formed after crude, uncontrolled heating. They were heat treated in a correspondingly uncertain fashion. Early metallurgists realized that more accurate heat treatments would impart advantageous properties to the metal. However, equipment to assure each piece exactly the prescribed time-temperature cycle was not available. Accordingly, designers were forced to employ large factors of safety. The resultant parts were bulky and cumbersome—the cars heavy and far from handsome.

Continued research disclosed many more desirable properties which could be produced in steel containing precisely controlled quantities of alloying elements. But merely using such alloys did not induce these properties in the finished part. Only precision heat treatment could create them. To accomplish this, gas furnaces were introduced equipped with automatic temperature control and burners which maintained constant analysis of combustion products in contact with the work. Automatic control, plus furnace design features possible only with gas, assured the operator that every piece treated would attain the same temperature and be subjected to the correct time-temperature cycle. This allowed reduction of safety factors because allowances for non-uniform heat treatment could be practically eliminated. Precise heat treatment likewise improved the metal's strength/weight ratio. Gradually it was possible to reduce the size and weight of parts even though the power and strength of our cars were steadily increasing. Substantial steel savings resulted. Former design methods were outmoded. Plant productivity was raised. Product quality improved. Gas reigned supreme.

Metallurgists followed their initial successes with more and more alloy steel improvements. Important new properties were developed—but always increased heat treating precision was required to make those latent characteristics available for effective use. And gas-fired equipment continued to lead the way into these regions of ever-tightening specifications.

Early direct-fired furnaces—the mar-

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vels of their day—left a work surface which required machining, grinding, polishing before it was ready for use. Accordingly, the original work piece had to be made considerably oversize so the unsound surface could be machined away. Again, gas was the key. It unlocked a vast treasure house of controlled atmospheres to protect the work during heat treatment. This second metallurgical revolution saved immense additional quantities of steel and alloying elements.

The field of controlled atmospheres prepared from gas is now an exact science. Today an atmosphere can be "designed" to produce nearly any desired heat treating result. Carbon can be added, taken away, diffused through or held constant in a piece of steel. A finished part can be kept clean and bright so no further work is necessary on its surface. In such applications, gas alone can do the job. Without it, modern heat treatment becomes impossible.

Scarcity of tin almost caused a national calamity during World War II. Again, gas, plus the ingenuity of the technicians who apply it, came to the rescue. Gas provided minutely controlled intensely hot burner batteries on both sides of rapidly moving tin plate strip to smooth and flow uniformly the thin tin film applied by a startling new process which saved many tons of this scarce strategic metal.

Once forge heating was the crudest sort of operation. Gas has now stepped in to revolutionize heating methods, eliminate burning, minimize scaling and produce a superior product. Tremendous heat concentrations, applied to steel moving through modern compact, continuous units, heat the work so rapidly that scaling is all but eliminated. These rapidly heated billets also forge more easily than those heated at speeds previously considered normal. By these substantial reductions of scale loss, and elimination of burning, gas has made it possible to greatly decrease the size of billets until they now closely approach the finished forging's weight. The saving in steel and its critical alloying elements thus attributable to gas aggregates an important annual tonnage.

Another precision heating process recently designed around gas produces from standard carbon steel pipe a high strength oil well tubing having properties superior to those of the previously used alloy steel material. Millions of pounds of costly, strategic manganese and molybdenum are thus saved.

Hazard removed

Elsewhere inert atmospheres, prepared from gas, blanket and agitate batches of flammable material in perfect safety during heat processing operations which formerly constituted an extreme fire hazard. Other gas-prepared atmospheres flush the air from the small space at the top of cans and jars in which foods are preserved.

Frequently, a difficult problem arises when natural gas replaces high hydrogen manufactured gas in light bulb plants and other glass working operations. Now endothermic crackers are available which transform natural gas into a fuel which produces results superior even to those formerly obtained with manufactured gas.

To the printing industry, the intense heat and precise controllability of gas flames provides the tool which alone makes possible the production speed and quality we demand in magazines and periodicals so much a part of modern living.

The intricate parts upon which radio and television depend would be impossible without the productive flames of gas. Our light bulbs—our fine china and glassware—countless elements of the homes in which we live and food we eat —depend upon gas for their production.

Everywhere the story is the same. Gas —the precision tool from pipelines produces a better product at a reduced overall cost. It performs jobs not otherwise possible. Few indeed are the industries whose operating problems are not simplified—whose products are not improved —through the use of gas.

Truly, the story of industrial gas is fabulous. In the glamor of its precision applications and their effect on modern living lies the potential to convince our customers gas will do more things better in home and industry. The industrial gas story offers our best opportunity to attract the widespread attention necessary to develop public desire for greater domestic use of our service.

To the gas company, industrial sales also constitute an extremely important and highly lucrative phase of its business. In the opinion of many, they provide our most profitable load. They continue, hour after hour, day after day, month after month, with only moderate variation between average and maximum usage. Extensive, expensive peak shaving facilities are never required to back up this type of load. Industrial plants are generally supplied directly from trunk mains through a single large volume measuring station, still further minimizing the facilities we must dedicate to their service.

These heavy, high-load-factor industrial deliveries every month of the year enable the gas company to maintain a favorable income position during periods when temperature-responsive loads fall to unprofitable levels.

But the direct financial return from industrial sales constitutes only a portion of their over-all value to a gas utility.

Gas is industry's most versatile fuel. Production methods—precision processes not possible with any other fuel, have been developed to take full advantage of its unique characteristics. The material wealth produced by gas-dependent plants works its way into and effectively strengthens every fiber of our economy. A substantial portion of this wealth—the creation of which industrial gas made possible—eventually appears to increase our revenues through greater use of gas service by homes, commercial establishments and satellite industries.

In addition, communities where industries prosper invariably continue to grow—still further increasing our market and magnifying the benefits returned by the gas sold to industry.

Only *gas* can do so many processing jobs so well. It is the great industrial vitamin—guarding the health—increasing the stature of an area's productive capacity. It provides that extra something which establishes industrial supremacy bringing higher living standards and a happier community.

Read and lead

● The habit of learning cannot be overemphasized as a factor in individual efficiency and progress. It determines whether one will go ahead or hit the skids during the second half of life.

There are always a few superior people who keep on learning and are not worried by job changes, since, they themselves make changes. As an illustration, about one-third of the men cited in *Who's Who* have changed their occupations after they were 35 years old. These men were adaptable, flexible.

A survey by the *Harvard Business Review* has shown that executives who had the best positions did the most non-fiction reading. The weaker executives, perhaps because they were too easily pleased with themselves, did little serious reading.

Leading and reading go hand in hand. Reading to keep up with the world and one's vocation is one way to keep the habit of learning.—Donald A. Laird in *Trained Men*

What does top management expect of the credit man?

By JOSEPH F. ROONEY

General Commercial Manager
Consolidated Edison Company of New York, Inc., New York, N. Y.

The real things that make this business of ours tick can be boiled down to three definite elements:

(1) The product we sell—either gas or electricity or both, (2) The price we charge for our product or service, and (3) The way we carry on our everyday operations in dealing with our customers.

Without meaning to brag in any way, I think we can say that the products we sell are the best that modern machinery can produce. By and large they are generally accepted by our customers as perfect for the purposes to which they use them. They are there when customers want them, any minute of the day or night, 365 days a year. So much for the product.

As to the price of the product, notwithstanding that gas and electricity are the cheapest things that people buy, there are still a great many people who feel that our rates are too high. Some of them would still feel that way if they got it for nothing. Just to be against the cost of something or everything, seems to be characteristic of some people, and we can't do much about it. We know that our rates in many instances are not adequate but were invariably fixed after investigation and hearings by proper authorities. Many utilities have been doing a fine job during this inflationary period in advertising the low cost of our products. Constant repetition of this theme can help to produce general acceptance of the truth of our contention.

But the third item, "How we carry on our everyday operations in dealing with our customers" is our baby and we can't deny it even if we want to do so. It is a very delicate baby that can become very sick if any ill-will winds are blown its way. Like most delicate babies, it could have some deep-rooted cause for its condition.

Customer irritant?

In this connection, I say there is no activity performed by any public utility anywhere that is more conducive to customer irritation than our credit and collection activities. Do you think so? I have no way of knowing. Does management think so? I have a suspicion that they have not given it too much serious thought.

I think so because I firmly believe that we cannot, for example, continue to send out one hundred, one thousand or one hundred thousand collection notices a month—of which we cut off a very small percentage—without aggravating, over a reasonable period of time, a large percentage of our customers. I believe that a large part of the feeling many people have against private utilities can be traced back to some treatment they received at some time or other in the collection of a bill, usually a small bill at that.

Why do we send out as many notices as we do? I am told—to bring in the money. What money? The tough money?

We send out as many notices as we do *because* our collection procedure provides certain steps must be taken if the bill or bills are not paid within a certain period.

This matter of sending out notices has become so mechanical that many utilities prepare them as a by-product of their billing operations. If in the interest of economy we must be mechanical even in our credit and collection activities, then the situation has become very serious indeed. One of these days someone is going to ask, "Why have any credit and collection group at all?"

Do I put the matter too strongly? Perhaps I do. But I say that on the basis of the personal attention that is now being given to individual customer's accounts, compared with the aggregate action being taken in our over-all collection effort, the question might very well be asked.

I say this, too, because two definite schools of thought are springing up as a result of the studies of machine equipment that is now available, particularly the electronic machines which we believe will be available in the not-too-distant future. One school of thought is along lines of complete mechanization with the barest amount of record keeping of any kind. The other school of thought is along lines of the necessity for greater *human* relationships with our customers because of this trend to-

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The above article is condensed from a talk presented at the 1953 National Conference of Electric & Gas Utility Accountants before the Collection Committees' luncheon meeting in Chicago.

ward complete mechanization.

Here is an extract from a recent report of the Electronic Accounting Machines Developments Committee of the Association. In advising the member companies to prepare for the advent of electronic machines, they list suggestions and among them is this:

"Simplify your credit procedure. Again, machines cannot exercise judgment.

"Study carefully whether or not many of your credit functions are inherently a matter of judgment or whether mechanical techniques can be applied to most credit problems."

At this stage of the game, I find myself in the corner of more human relationship in the face of complete mechanization because there are some things you cannot mechanize. Judgment is one of them and you certainly need good judgment in credit matters.

However, I have been suspicious for a long time that we have been kidding ourselves that we are giving personal judgment to customer accounts either individually or collectively, when as a matter of fact there has been little judgment at all.

It doesn't take the kind of judgment I am talking about to grant an extension or deny it when a customer calls. It doesn't take the kind of judgment I am talking about to tighten up on collections when it looks as though things are getting tough several months after the fact, or to start assessing deposits all over the place.

But it does take a great deal of judgment and sound thinking to know what is coming and to prepare accordingly, not only looking at the money that is to be protected, but at the effect of what a gradual or prompt change in policy may cost you to make it effective and also what it will do to your customers' feeling toward you.

To put it another way, how can we capitalize on poor times? There are those, I am one of them, who believe it is possible to make credit and collection contacts a source of improved customer relations in hard times as well as good times, without costing the company any more than it is going to have to pay anyway.

I wonder how many of us were in the credit and collection end of the business back in the 1930's. It was my first practical contact with credit operations. At that time, Consolidated Edison comprised some dozen different gas and electric companies, each one operating independently in these matters. Thousands of families were seeking home relief. They were terribly tough times for many honest and good people and many families had their gas and electricity cut off. The home relief people of the City of New York contacted the parent company, and I was given the job as go-between for our various credit departments and the city organization. It was a most heart-breaking experience.

As I look back now and realize the panic and despair that were in the air, it is not quite fair to try and blame anybody for some of the things that happened. But there were two things that did happen which should serve as a beacon for us especially today.

Good will lost

For one thing, our uncollectible bills reached $2 million, one percent of our sales at that time. I don't believe that one dollar of that $2 million could reasonably be charged to good will. We lost the money (most of it we would have lost anyway) but because we lost it *grudgingly*, we also lost a golden opportunity to use it in the acquisition of some good will.

The other thing was that in the postmortems which followed, it was felt that if we had acted sooner and quicker, the losses would not have been as great. That brings me to the meat of what I feel has been "our sins of the past", and to what we, who are charged with this great responsibility today, should do about it now.

In the midst of high business activity such as we have been going through during these past years, every practical person knows from concrete experience that another depression is coming. When, how long, or how severe it will be, nobody knows for sure. We do know, however, that many untried things have been set up as a result of our experience during the last depression, which we hope will soften the blow.

But our own instinctive knowledge, past experience, and the reality of hard, cold facts, together with a careful reading of the daily press and the many fine monthly bulletins of our larger banks and trade publications, all of which are continually forecasting how much longer "good times" will last, are the clarion call which should make us stop and take heed.

There is one thing in all this forecasting of which I am particularly leery. When they say, as most of them have been saying, that business is going to be good for two or three years, they are not in my opinion forecasting. They are simply guessing, because known facts are not available to indicate what conditions will be so far ahead. There are too many nebulous things on which matters of this nature depend.

Who knows, for example, just what will come out of the present situation in Korea or the over-all Russian proposal or President Eisenhower's program? A change in the federal budget could also upset things. It would seem to me that no one can forecast economic conditions as they affect credit intelligently for more than a few months, certainly not more than six months.

There is no principle in business more unrelenting in its positiveness than the one that an economic depression emphasizes the unsound thinking of a business. The real mistakes are made in the years preceding a depression, rarely during a depression.

Now the question is, "What can we credit and collection people in the utility business do about this?" There are many things.

First of all we must change our whole method of thinking about our job as being in the narrow sphere of keeping the outstanding down, the uncollectibles low, and making sure as far as the customer is concerned, that we are always right. Our jobs are and should be much bigger than that because, believe it or not, machines can do most of those things. Secondly, we have to get management, top management, into the credit and collection act more than they have been.

Our job far transcends the mere collection of monies of our companies.

There is no group in our various communities that should know as quickly as we should, the economic trends that are taking place.

These trends should not only be based on the results of the study of statistics that we should have constantly available but should be supplemented by the results of interviews with the credit representatives and top executives of the business and commercial life of our communities. Looking at my own territory, I feel we should discuss this problem with representatives of the cloak and suit business, hotel and restaurant business, real estate people and many other groups.

In Consolidated Edison, our top management has for some time been evidencing a growing interest in credit matters. As a matter of fact, only recently while I was getting my thoughts together for this paper, the president of our company called me and asked what was going on in this town. He had noticed that there seemed to be a greater number of vacant stores. All I could tell him was that I had noticed it too, but why they were vacant, or to what extent it would continue, I did not know without a great deal of searching which would give him the answer *after the fact*.

It was plain he was thinking in terms of the anticipated future construction of plant and equipment.

The required credit action should be brought to the attention of *management* so that they may know the extent of possible losses in anticipated hard times, study ways and means to which such losses may be capitalized in favorable customer reaction, if possible. Yes, even the extent to which collection costs might be reduced in anticipated good times.

But before we can do any of these things, there are many things we have to know that I somehow feel we do not fully or at least factually know today.

For example, if we tried to prove that a manufacturing plant was efficient, we would demonstrate that fact in terms of an adequate net return on the investment. But suppose we try to evaluate the return on a dollar of collection expenditure. Where would we start? What action in what area and on what accounts would produce results proportionate to our effort? What action is a gamble? What action is a waste? Do we know what the breaking point is? If so, have we cut our collection activity to fit the economics of the pattern?

Admittedly, it is difficult to answer these questions. But why? Is it because we have not conducted sufficient analytical research in credit and collection activities and results to find the answers? We always seem to labor instinctively in the direction that every active delinquent account is a potential loss at some unknown time. We tend, therefore, to treat all accounts in this vein even though our methods may vary as between groups of customers based on the amount owing or the past payment record. But basically we take collection action on active delinquent accounts because of fear that we might otherwise suffer a loss.

One study has been made which shows that only one active delinquent account out of every hundred processed for collection actually results in an uncollectible bill. This indicates that any expenditure made in the follow-up of the other 99 accounts is a waste of money. But is it? Do we know?

Plan of action

Why isn't it possible to define the problem and map out an efficient plan of action? Can't we distinguish our risks and classify them better than merely "good pay", "slow pay" or "bad pay?" Can't we learn in what categories bad debts occur so that experience factors can be determined on accounts which are on our lines for a year, two years or three years, or losses experienced among various types of commercial accounts, or the influence on final bills and losses associated with the transient type of customers?

The negligible proportion of loss which occurs from the long-term resident on whom much collection action is sometimes expended and consequently wasted is a matter that should receive very careful study. Can't we set our procedures to anticipate these and other types of risks so that based on experience, we may know how much collection effort and at what price in uncollectibles, we can afford?

In other fields, collection agencies know the answer. There is one group, for example, who know that for a specified commission, they can handle our final bill collections and make a profit. Why don't we know what is profitable or unprofitable?

Let's take deposits. There is little doubt that selective deposit coverage offers the greatest hope of recovering certain final bills. Aside from other considerations, a selective deposit coverage is economically justified if properly administered. But, how do you work out this selectivity? I feel it can be done by studying the characteristics of our losses, developing repetitive factors and reducing the area of coverage to the groups which indicate the most favorable potential results. There is no point trying to guess all bad risks among customers. You can't do it.

If, for instance, you found that your greatest number of charged-off accounts occurred among those in service less than three years and found, from information supplied when new customers made application for service, that you can guess fairly accurately in 30 percent of the cases, which of them will be on their way in three years. Then wouldn't that be a reasonable basis for labeling this group as a definite risk, subject to benefit of deposit protection?

Other studies show that 70 percent of all accounts charged off are beyond the control of the collection man to do anything about anyway, because accounts are either for small amounts or are for service use of less than 60 days. In the first instance, collection is uneconomical and in the second instance, it is impractical.

Recently there has been a pronounced trend towards cost consciousness. During the boom period since 1941, there has been substantial liberalization in collection follow-up, or at least there should have been. Even though loss ratios have been edging higher during the last several years, some collection men (not all) feel tighter collection practices cannot be justified on the basis of the reduction in the losses contemplated. This seems reasonable because actually most of the recent higher losses have been just as much beyond our control to influence, as were the obviously low losses

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Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons
Assistant to the Manager
Philadelphia Electric Company

● **Handbook for Employees**—The trend in modern employee handbooks is away from company "rule books" and toward what is sometimes called "working partnership handbooks."

Communication in Management, a recent book by Charles E. Redfield published by the University of Chicago Press, Chicago 37, Ill., price $3.75, states that a handbook should be one of the cornerstones of a progressive personnel policy, serving almost as a "Bill of Rights" in acknowledging that employment involves a voluntary agreement between free and honest parties. It should be designed not only to build morale but to cement it.

Some topics suggested for a good handbook are:

Welcome (a message to the employee from the chief executive).

About Your Company (a description of the company and its products).

Policies About Which You Will Want To Know (types of employment, policies on advancement, layoff, termination, vacations, and collective bargaining).

The Rules of Your Job (hours of work, wages, taxes, safety, relationships with supervisors, rules on gambling, drinking, fighting, parking, use of phone).

In Addition To Your Pay (employee benefits).

Services and Activities For You (recreation, cafeterias, canteens, lost and found).

Studying Your Way Up (training and educational programs).

Other Facts You May Wish To Know (history of the company).

The treatment should be friendly and informal, with a liberal use of photographs, drawings, and cartoons.

● **NLRB Rulings**—*Union spying on Company meetings*—An employer has recently learned from the NLRB that what's sauce for the goose is not always sauce for the gander. It is a well-known fact that an employer's surveillance of the union is an unfair practice and is cause to set aside Board elections. However, the converse may not always be true.

One employer failed in his attempt to have an election set aside on the grounds that a union's spying on his meetings was equivalent to employer surveillance and, therefore, interference with the election. (Southern Car & Mfg. Co., 107 NLRB No. 66). The Board refused to set the election aside and certified the union.

New pressure in wage bargaining—A trial examiner for NLRB says he thinks a group of engineers at Boeing Aircraft Company's Seattle, Washington plant went outside the protection of the Taft Act when, in order to put pressure on the company while wage negotiations were in progress, they set up a "manpower conference" to which they invited other aircraft employers. At the conference, notices to the employers said, the aircraft manufacturers could bid for services of the Boeing engineers.

As a result, Boeing fired the engineer who spearheaded the move (later taking him back during contract negotiations), pointing out that management felt the worker couldn't keep his mind on the outside activity and do justice to his job at the same time.

In line with the recent Supreme Court ruling affecting a group of broadcasting engineers the trial examiner thinks the engineers' action smacks of disloyalty and that the pressure move was not one that would be considered valid under the Act. He points to consequences of the conference, if it were successful (it wasn't). Unlike a strike, he says, the engineers' move could have had more long-range effects, in view of the critical shortage of competent aircraft engineers at the time the issue arose.

● **How Some Do It**—After customers complained about busy telephone lines, Ciba Pharmaceutical Products, Inc., checked up and found that at least 20 incoming and 12 outgoing calls an hour were personal. The firm brought the problem home to employees by pointing out that if every employee received or made one nine-minute call a day, all the plant's phone wires would be tied up from 8:15 A.M. to 4:55 P.M.

A novel way to create greater employee eagerness to catch mistakes has been devised by Sears, Roebuck & Company at its Seattle branch. Inconspicuous errors were "planted" in paperwork going through the office. Every worker finding a mistake received a silver dollar. The campaign has increased alertness considerably, the firm reports.

The office manager of a small Chicago insurance firm has discovered how to get employees back to their desks within a reasonable time after they leave for a coffee break. He limited the break to 15 minutes and divided the 32 girls under his supervision into four groups of eight girls each. Only one group leaves at a time. The second group waits until all eight girls of the first group return; the third waits until the second group has come back, and the fourth departs when the third checks in. The groups are rotated weekly. The system now works so well, the manager reports, that even he can take a coffee break.

● **Causes of Industrial Peace**—After years of costly industrial strife, the Atlantic Steel Company of Atlanta, Ga., has been enjoying labor peace and economic prosperity. How this came about was the subject of Case Study No. 12 by the National Planning Association on the "Causes of Industrial Peace." (Each case study in the series of 15 may be ordered as it is published from the NPA for $1. The whole set of 15 costs $12.50. NPA's address: 1606 New Hampshire Ave., N. W., Washington 9, D. C.) The study revealed that labor relations at Atlantic Steel had gone from "satisfactory" (in the Twenties), to "Bad" (in the Thirties), to "not-so-bad" (in the Forties), to —at the present—"excellent."

With industrial peace, the company has thrived, productivity has increased markedly, the safety record is better, absenteeism has decreased, there is less turnover of workers, and a joint training program has been initiated. Employees, on the other hand, have satisfactory fringe benefits, receive higher wages than Atlanta's general rate level, and have received increases equal to or greater than northern and southern patterns since 1946.

The turning point came in 1944 when the company hired a general superintendent who began to work with the union, stressed direct communication with employees, and set up special training programs to increase lower management's understanding of the importance of good industrial relations to the firm's prosperity.

The present excellent relationship came about in an area traditionally apathetic or hostile to the concept of collective bargaining and with a company that was small, independent, and subject to competitive drawbacks caused by distance from sources of supply. Peace came because strife was too costly. Now management constantly calls on the union for help in getting things done in the plant. The union, interested in seeing the company expand and prosper, seeks opportunities to cooperate in increasing production.

● **Wage and Hour**—*Proving Executive Exemption*—The employer who contends that an employee is exempt from the Wage-Hour Law as an executive employee, must bear the burden of proving the exemption, a U. S. Court of Appeals ruled recently (Pugh v. Lindsay et al., 53 ALC 1029).

● **Radioactivity at play**—A GE engineer from Schenectaday who is a golfer with a bad slice, got tired hunting for those elusive balls in the rough. His solution: a spot of radioactivation and a Geiger counter. Reports are it works fine.

● **Another Benefit**—Pabst Brewing Company is providing music lessons for employees and their families. Pupils get Saturday morning instruction in any instrument at 50 cents a session.

● **Promoting good shop relations**—A "Charter of Labor Relations for Foremen and

(Continued on page 51)

Basic principles of sound employee selection—an important element in cost control

The employee and clerical costs

By E. R. EBERLE

Chairman, A. G. A. Subcommittee on Employee Selection, Joint A. G. A.-E.E.I. Accounting Employee Relations Committee

• The following article was written exclusively for the A. G. A. Monthly.

Clerical cost control has today become a matter of prime importance to companies in the electric and gas utility industry. The current high salary level for clerical work in accounting and other office departments, together with the continually increasing work requirements of these departments resulting from the expansion of the business, highlights the urgent need for improving clerical efficiency. Managerial skill and "know-how" must solve this problem.

Good employee selection and placement is basic to progress in developing an efficient organization. Ineffective selection methods will result in higher training costs and high turnover, with further additional costs for the training of replacements. The company that is successful in selecting properly qualified workers will gain the benefits of more effective work production.

It is fundamental that the worker must have capacity for the particular task, or he will fail. On the other hand, if his ability exceeds the requirements of the job, and this condition continues for too long a period of time, he will become dissatisfied, unhappy, and may leave the company. This two-pronged danger points up the need for analyzing individual jobs, as to both requirements and opportunities. In placement work these factors are just as important with respect to satisfactory job performance, as are matters of an applicant's ability, education, background, physical qualifications.

Mr. Eberle is assistant to general commercial manager, Public Service Electric & Gas Co.

Broad objectives of a sound selection procedure include steps which tend to:

(1) Avoid hiring employees who will prove to be unsatisfactory and who will sooner or later leave.
(2) Avoid hiring employees whose abilities cannot be adequately utilized and who will later leave.
(3) Avoid hiring mediocre employees, who ultimately will prove to be a burden to the company and who will have an adverse effect upon the morale of other employees.
(4) Insure that the maximum number of those hired will be well-qualified and properly adjusted individuals.

Much of the material in this study has been obtained from a survey of 15 large utility companies. Many of the procedures outlined are based upon the reported experiences of these companies.

The selection procedure includes six basic fundamentals: recruiting, interviewing, testing, physical examination, checking references, and final selection and placement.

The companies surveyed uniformly recognize that recruiting is indispensable to good selection. Rarely indeed, particularly in today's labor market for office workers, can an employer expect to wait for many well-qualified prospects to come to him.

Recruiting requires careful planning and hard work. Continuous efforts are necessary to maintain a reasonable supply of applicants. Recruiting sources used include the following:

(1) state and federal employment agencies, (2) high schools, commercial schools, business schools and colleges, (3) private employment agencies, (4) employees' friends and relatives, and (5) newspaper advertising.

Some companies have successfully established working connections with high school and business college placement personnel, to the end that they refer

promising candidates in the graduating classes for interviews.

The practice followed by all of the companies studied provides for the filling in of an application form by all applicants for clerical positions, except those individuals who obviously are not qualified for any kind of employment.

Some companies have found it desirable to have two interviews by experienced interviewers. The first interview serves primarily as a general screening procedure. The second interview is comprehensive and is conducted in most cases after references, school record, test results, etc., have been checked.

The interviewing procedure, in any case, should be designed to screen out at an early stage those applicants who are clearly not qualified. This can be accomplished through the use of well-directed questions which relate to minimum qualifications. Use of a check-list can facilitate the covering of such items as age, schooling, previous positions held, reasons for leaving, skills, physical disability (if any), etc.

Many of the larger companies surveyed follow the practice of having the screening, interviewing and testing procedure handled by a central employment or personnel department. Qualified applicants are then referred to individual departments where the final decision as to whether they are to be hired is often made by the first line supervisor. In smaller companies all of this work is handled by the line organization.

Regardless of the size of the company, it is widely recognized that the role of the interviewer doing the screening is vital to the program, particularly with respect to selection of employees for clerical work. Only highly-qualified and well-trained interviewers should handle this work if the maximum results are to be obtained. The interviewer must be fully conversant with the continual shifting of personnel needs within the company, with changes in work load and requirements in the various departments. With respect to job vacancies he must be well-versed in operation and procedures. He must be fully acquainted with the following facts concerning each specific vacancy:

(1) Job name or title,
(2) Work performed, and location,
(3) Ability requirements,
(4) Level of intelligence required,
(5) Skills required,
(6) Hazards (if any),
(7) Physical requirements of the job,
(8) Promotional possibilities,
(9) Salary scale.

In addition, the interviewer is expected to appraise the applicant in a general way and to assay certain intangible factors such as motivation, loyalty, stability, dependability, etc.

In the final analysis, much of the success of a selection program will depend upon the skill of the interviewer in the performance of his work.

The part first line supervisors play as interviewers must not, however, be overlooked. Because they are not skilled interviewers, they can do little more than supplement the screening already done by the experienced interviewer. The purpose of their interview, in addition to making the final selection, is to more fully acquaint the applicant with the job to be done and to give the supervisor and applicant an opportunity to "size each other up."

Testing

Employment testing is a procedure which is today quite widely used in industry as a valuable tool or aid in the selection of new employees. Thirteen of the 15 participating companies in this survey report that they are currently using various types of tests.

Selection tests are designed in the broad sense to measure the applicant's "Can Do" qualifications. They are usually of two general types. One type, known as the proficiency test, is designed to examine and measure the applicant's skill and knowledge; the other type, known as the aptitude test, is designed to examine the applicant's potentialities or "trainability."

Use of employment tests can be of value to the employer because they can provide a reasonably accurate measure of qualities that are otherwise difficult to evaluate. They can measure the applicant's level of intelligence, his clerical aptitude in such terms as speed and accuracy, and his proficiency in such skills as arithmetic, typing, shorthand, etc. Tests are free from bias, and the test results are not influenced by the applicant's appearance or personality traits.

From the applicant's point of view, tests afford him an opportunity to demonstrate to a prospective employer what he can do. Furthermore, tests can help in guiding the employer in the proper placement of the individual.

One reporting company has stated that it believes that testing has definitely served the purpose of eliminating a substantial number of unqualified applicants. Tests were characterized by this company as a reasonably reliable method of predicting successful performance on the part of an applicant, but the company cautions that testing is by no means a fool-proof method of insuring selection of successful employees.

A successful testing program requires careful administration. The applicant should be put at ease. The interviewer should explain to the applicant that he will be asked to take a number of tests in order to enable the company to obtain a better picture of his background and abilities. It is obviously important that the applicant understand the objectives of the testing procedure. An effort should be made to dispel any fear of tests. He should be told that all applicants take tests as a prerequisite to consideration, but that tests are only one phase of the over-all appraisal procedure. It should be pointed out that the test will enable him to demonstrate his abilities.

Testing is primarily an aid to management in probing the qualifications of individual applicants. Only those tests should be given which will indicate capacity in the line of work for which the applicant is being considered. It must be recognized that employment tests cannot provide measures of motivation, willingness to work, perseverance, honesty, and ability to get along with others, because these qualities depend very largely upon the human will and personality, rather than on ability. Accordingly, it is clear that tests alone cannot do a complete job of selection.

This points to the importance of the interviewer in his analysis of the applicant's "Will Do" characteristics. This also points to the importance of another phase of the selection procedure, namely, that of checking references. This latter step will frequently give valuable leads as to an applicant's "Will Do" characteristics by disclosing what he "Has Done."

The practical value of specific tests to a company can be determined only after they have been used for a period of time and after test scores can be checked with actual productivity on the job. Eventually, norms can be established which can serve as reasonably reliable guides in selecting new employees.

There are many tests on the market designed to be used in selection of office workers. Twenty different types of these tests are currently used by the 13 reporting companies that do testing. The maximum number of different types of tests used by any one reporting company is eight, and the average is between three and four.

It is, of course, just as important for an applicant to be physically qualified for a job as to be mentally qualified. The danger of employing individuals for clerical jobs, who are or may become "industrial hazards," is very real. Likewise, certain district office jobs in the clerical group involve field work and impose varying physical demands.

A physical examination is today very generally recognized as an employment prerequisite. It serves the purpose of eliminating applicants who do not meet minimum physical requirements and also serves to screen out "borderline" applicants. By this means, some control is maintained with respect to the potential additional costs and problems that attach to the hiring of individuals who because of underlying physical reasons may well be "absence-prone" or poor performers.

Many companies question the value of references of applicants' friends or acquaintances. They point out that an applicant would not submit the names of any individuals who would not be willing to provide a favorable reference.

Most of the reporting companies, however, indicated that they felt that references from school authorities and prior employers, if properly checked, can provide valuable and useful information. Almost uniformly, the companies indicated that they rely upon the telephone rather than the printed inquiry form, because information obtained by telephone is far more apt to be complete and accurate than information obtained by letter. Some companies do resort to correspondence when the applicant comes from a considerable distance or when the former employer cannot be reached by telephone.

As a typical example, one company makes a practice of checking the clerical applicant's last three jobs. In addition, information is obtained concerning the applicant's past paying habits by checking with the local credit reporting bureau. Some companies also make a regular practice of checking applicants with the local Police Department before actual hiring.

In checking references with prior employers, a number of companies use check lists to insure that all important points are covered. Typical questions include the following:

(1) What were his dates of employment with your company?
(2) What type of work did he do?
(3) Was his performance satisfactory?
(4) Why did he leave?
(5) He says his earnings were $xx per week; is that correct?
(6) Was he always honest in financial transactions?
(7) What was the extent of his lost time from work? What were the reasons?
(8) Does he have any domestic or other difficulties, or habits that might adversely affect his work?
(9) Would you reemploy him? If not, why not?

When selecting applicants directly from high schools or commercial schools, one participating company reports that by maintaining close liaison with the schools it has been able "to obtain accurate detail information on an applicant's scholastic standing, academic accomplishments and interests, extra-curricular activities, and also analysis of the best-suited job for the individual as indicated by the vocational guidance instructors."

Human nature is surprisingly constant. Deficiencies disclosed by a prior employer or by a school record will quite likely not be eliminated overnight. Similarly, experience has shown that individuals who have consistently been good performers for previous employers, or who have had outstanding school records, will have a better chance of "proving out" as very satisfactory workers than those with less favorable records.

Checking of references, if properly handled, can aid materially in the selection procedure by bringing to light information, both favorable and unfavorable, as to an applicant's past history and performance.

Today many industrial companies

(Continued on page 52)

Gas and electric annual reports analyzed

FOR THE FOURTH year the General Accounting Committees of American Gas Association and Edison Electric Institute have sponsored a study of current industry practices in reporting financial and statistical information to stockholders.

Now available to the industry are a limited number of copies of the "Study of 56 Gas and Electric Company Annual Reports to Stockholders for 1952." The booklet summarizes the project report of the Joint A. G. A.-EEI Subcommittees on Financial Reporting under the co-chairmanship of Francis J. Labanca, New Orleans Public Service Inc., and R. J. Plourde, The Detroit Edison Company.

Included in the cross section of 56 utilities are 22 gas companies, 11 electric companies and 23 combination companies.

"Almost without exception," the report notes, "these annual reports for 1952 were attractive and colorful and indicated careful preparation. They were well illustrated with pictures, charts and statistical tables, probably to attract the attention of the security analysts as well as the stockholder in these days of heavy financing."

Special sections of the report are devoted to discussion of the certified balance sheet, certified income statement, certified surplus statement, notes to the financial statements, condensed statement of operations, statistics, miscellaneous charts and tabulations.

Order copies from American Gas Association, 420 Lexington Ave., New York 17, N. Y. Available without charge.

● Meet Francis J. Labanca, A. G. A. chairman of the Joint A. G. A.-EEI Subcommittees on Financial Reporting.

"Fran" was educated at Tulane and Loyola Universities, and acquired the certificate of a certified public accountant in June 1931. He served as a special lecturer in accounting at Loyola for several years. He has been connected with New Orleans Public Service Inc. for over 30 years, where he is at present serving in the capacity of assistant general auditor.

He is a member of American Gas Association, Edison Electric Institute, American Institute of Accountants, Society of Louisiana CPA's and Institute of Internal Auditors. He is past-president of the New Orleans Chapter of Institute of Internal Auditors and at present a member of its board of governors, currently a member of the board of directors of the New Orleans Chapter of Society of Louisiana CPA's, and 1948-49 chairman of the A. G. A. General Accounting Committee.

F. J. Labanca

CHARLES C. EELES, *CHAIRMAN* · RAY TROWBRIDGE, *VICE-CHAIRMAN*

A tailor-made promotion for companies large and small

Promises your company closer relations with equipment dealers

Shows you how to supply better equipment requiring less service

Commercial water heater drive opened

a PAR activity

More than 60 gas utility members of American Gas Association in 26 states, Canada, Hawaii, and the District of Columbia are participating in the 1954 A. G. A. Commercial Water Heater Sales Campaign—the first nationwide commercial promotion of gas water heaters ever to be staged. The hard-hitting campaign promotes hot water for dishwashing and sanitary purposes in the nation's large-volume feeding establishments.

Preliminary reports show increasing support for this long awaited promotional drive. Major theme is "Plenty of Hot Water Pays—All Ways!" The drive opened on schedule the first of February and is expected to reach its peak during March and April.

At this moment, there is still time to get on the campaign band wagon and reap the benefits from a coordinated nationwide promotion. By organizing at once you can help the industry during March and April to chalk up record sales of gas water heaters.

Participating companies are concentrating their sales efforts on all restaurants and the feeding operations in hotels, institutions, factories and other business organizations which utilize hot water.

Improvement and modernization of dishwashing facilities in many hotels and restaurants through this campaign will be sought by coordinating sales efforts of gas companies, gas water heater manufacturers and all dealers to place economical and efficient gas water heating equipment where it is most needed.

Major attention will be devoted to checking with these hot water users to determine whether their hot water production facilities have become outgrown

PLENTY OF
HOT WATER
PAYS
ALL WAYS!
Build Load—Stop Competitive Inroads
Gas Water Heaters should be the natural preference of restaurant operators just as gas is their preferred cooking fuel. So competitive fuels are waiting to be replaced just as undersized equipment is waiting to be replaced.
When you actively promote and sell adequate water heating for dishwashing in restaurants, hotels and institutions, your sales force as well as that of your dealers will become more alert to selling properly sized water heaters to all your commercial accounts.
Particularly will it concentrate the attention of all salesmen on selling gas water heaters—instead of competitive heaters—to apartment houses, retail shops and stores, launderettes, auto laundries, etc.
The Field Is Wide Open For Full Exploitation
You have everything to gain—nothing to lose—when you run a Commercial Water Heating Sales Campaign.
Your reward will be increased base load, closer dealer support and cooperation, and a guarantee of the maximum possible share of the business in the future.
AMERICAN GAS ASSOCIATION, 420 LEXINGTON AVENUE, NEW YORK 17, N. Y.

Provides effective insurance against loss to competition

Opens the door to increased and profitable commercial load

Peps up sales effort, results in better trained salesmen

or outmoded. Further checks will be made to locate other reasons for hot water deficiency, including age of the heater, corrosion of heater coils, reduced input to the heater-burner due to additional equipment added to the line without increasing service.

Other causes of inadequate hot water supply can be attributed to corroded water lines, improper or undersized dishwashing equipment or facilities, or waste of hot water. In still other instances hot water may be produced in an uneconomical manner, sometimes attributable to the choice of fuel. Concurrently, the campaign will encourage operators of volume feeding places to assure themselves of hot water to meet service demands efficiently and economically.

Promotional material for this Commercial Water Heater Sales Campaign centers around a portfolio of sales helps and ideas (see accompanying illustrations) promoting these appliances while also building commercial gas loads. Portfolio contents include mailing pieces from leading water heater manufacturers, suggested letters to be sent to water heater dealers, hotel, restaurant and institutional feeding operators.

Additional promotion material comprises commercial hot water sizing charts; "Enough Hot Water—Hot Enough," and thermometers, available at nominal cost through the Commercial Cooking Bureau, American Gas Association, 420 Lexington Avenue, New York 17, N. Y. "Standard Number 3", a booklet stating hot water requirements for mechanical dishwashing to meet minimum sanitation standards, is available for 50 cents (with quantity discounts) from National Sanitation Foundation, Ann Arbor, Michigan.

This national water heater sales campaign came into being as a result of the late 1953 meeting of the Food Service Equipment Committee when it was decided to hold such a campaign during February, March and April of this year. Accordingly, a Commercial Water Heating Campaign Subcommittee was appointed with Joseph N. Betz, The Manufacturers Light and Heat Co., Pittsburgh, as chairman. This group and the A. G. A. staff were authorized to draw up the campaign plans with the staff to prepare the necessary materials for member company participation.

This new 1954 Commercial Water Sales Campaign offers a golden opportunity to make a study of the many establishments on your lines. It will help in many instances to open the way for water heater sales. It will help your customers to get the maximum usage from their present equipment and will further cement your customer relations.

GAMA announces winners of PEP sales contest

Representatives of A. G. A., GAMA, gas companies and equipment manufacturers selecting winners of GAMA prizes for 1953 PEP sales campaign: (left to right) M. A. Combs, A. G. A.; J. C. Heilig, Savory Equipment, Inc.; George Velte, Magic Chef; Harold Massey, GAMA; H. S. Walter, A. G. A.; D. E. Dillon, Brooklyn Union

MINNEAPOLIS GAS CO., Piedmont Natural Gas Co., and Central Florida Gas Company have been declared top winners in the GAMA $1,000 PEP sales contest on commercial gas cooking equipment. The contest ran concurrently with the A. G. A. PEP Sales Campaign last fall and was limited to companies participating in the A. G. A. promotion.

Of 32 companies who entered the GAMA contest, 24 completed the competition and submitted final sales figures prior to the judging on December 29. Competition was so keen that the final winners were in doubt down to the final report. In fact, in two cases there were ties until the calculating machine reached the fourth decimal.

Winners in each of three categories were selected on the basis of their commercial gas equipment sales per company meter. Top winner in each group will receive a $300 cash award and an achievement award plaque. These plaques will be presented to the commercial representatives of winning companies at the A. G. A. Industrial and Commercial Gas Section's Sales Conference in April.

Winners in Group I (100,001 or more total gas customers) are: *winner*—Minneapolis Gas Co., Minneapolis, Minn.; *honorable mention*—The Peoples Gas Light & Coke Co., Chicago, and Oklahoma Natural Gas Co., Tulsa.

Group II winners (25,001 to 100,000 total gas customers) are: *winner*—Piedmont Natural Gas Co., Charlotte, N. C.; *honorable mention*—The Bridgeport Gas Light Co., Bridgeport, Conn., and Binghamton Gas Works, Pittsburgh, Pennsylvania.

Winners in Group III (up to 25,000 total gas customers are: *winner*—Central Florida Gas Co., Winter Haven, Fla.; *honorable mention*—Chattanooga Gas Co., Chattanooga, Tenn., and Keystone Gas Co., Pittsburgh, Pennsylvania.

Home service workshop____

(Continued from page 16)

challenge to the sales department is to create the demand for our service and to fill the demand by action. Since home service is an integral part of the sales organization, that challenge is to you personally."

Hosts at the Monday social hour were the Gas Range Division of the Gas Appliance Manufacturers Association. This was followed by an informal conference and buffet supper. On Tuesday evening, hosts were the Ruud Manufacturing Company. A pre-conference get-together was given by Bendix Home Appliance Institute, and on Thursday about half of the Workshop delegates accepted the invitation of the Tappan Stove Company for a trip to Mansfield to visit the manufacturing processes.

Strategy mapped for sales conference

Programs and Papers Committee planning schedule for 1954 A. G. A. Sales Conference on Industrial and Commercial Gas, April 12-14 at the Edgewater Beach Hotel, Chicago: (clockwise) J. H. Mikula, Milwaukee; W. W. Baughman, Elyria, Ohio; Lee Corn, chairman; M. A. Combs, A. G. A.; J. C. Huston, Bridgeport, Conn.; D. A. Campbell, Rockford, Ill.; M. H. Douglas, Baltimore; H. A. Sutton, Newark, N. J.

Contributing largely to the success of the conference were the three working committees: The Program Committee included Elizabeth Lynahan of The Peoples Gas Light and Coke Co., Chicago; Eleanor Morrison, Michigan Consolidated Gas Co., Grand Rapids; Flora Dowler, The Manufacturers Light and Heat Co., Pittsburgh; Ruth Soule, The Brooklyn Union Gas Co., New York; Mary Huck and Jessie McQueen, American Gas Association. The Hospitality Committee included Mrs. Kathryn Johnson, Rockland Light and Power Co., Spring Valley, N. Y.; Virginia Stacy and Jeanne Montgomery, The Ohio Fuel Gas Co., Columbus; Marjorie Bettesworth, Consumers Power Co., Jackson, Mich.; Frieda Barth, Michigan Consolidated Gas Co., Detroit; and Vivian Marshall, New Orleans Public Service Co., Louisiana. The Registration Committee consisted of Mrs. Ruth Stewart, Michigan Consolidated Gas Co., Ann Arbor; Henriette Quilling, Northern States Power Co., St. Paul; Jeanne Snodgrass, The Ohio Fuel Gas Co., Columbus; Mrs. Laura Piepgras, Central Electric & Gas Co., Lincoln, Nebraska; and Marjorie Chandler, The Consumers' Gas Company of Toronto, Canada.

Many afternoon luncheon conferences are scheduled for gas supply, transmission and storage men

New Orleans conference plans set

Natural gas, from well to user, will be the target for two days of intensive scrutiny during the Operating Section's Gas Supply, Transmission and Storage Conference in New Orleans, Thursday and Friday, March 4 and 5. Some 600 gas men are expected to attend and take part in the two general sessions and the ten afternoon luncheon conferences scheduled for the Jung Hotel. The GSTS Conference is the new designation for the Transmission and Storage Conference, the first of which was held last spring in Chicago, and which was, to some extent, a successor to the former Natural Gas Department spring conferences.

Grove Lawrence (left), chairman, Transmission Committee, and J. V. Goodman (right), chairman, Underground Storage, who will preside at the conference general sessions

Grove Lawrence, Southern California Gas Co., will preside at the Thursday morning general session as chairman of the Section's Transmission Committee. The session will be opened by J. H. Collins, New Orleans Public Service Inc., followed by J. E. Keller, Dow, Lohnes and Albertson, Washington, D. C., who will analyze the relationship between the gas industry and the Federal Communications Commission. Mobile radio and microwave, which are playing increasingly important roles in the industry, are regulated by the FCC and Mr. Keller will explain the procedures under which the commission assigns frequencies and controls power output. He will emphasize the importance of creating and maintaining friendly relations and a sympathetic understanding between the industry and Washington.

Operation of drilling wells with gas or air as a circulating medium will be discussed by E. L. Perkins, El Paso Natural Gas Co., while a "critical problem" of the gas industry—pipeline breaks—will be analyzed by D. C. Palm, Natural Gas Pipeline Company of America.

Pulsation exploration as it affects gas measurement will be discussed by Professor Eric Lindahl, Mechanical Engineering Department, University of Wyoming. He will also report on the exploratory research program of the American Society of Mechanical Engineers and explain the importance of A. G. A. joining in that program.

The securing and training of qualified personnel remains one of the ever-pressing problems of the gas industry. A speaker, to be selected by the A.G.A. Personnel Committee, will discuss the training of men for executive positions, the men who will one day determine the policies and guide our industry.

The Friday morning general session will be headed by John V. Goodman, Equitable Gas Co., as chairman of the Section's Committee on Underground Storage.

The Session will be opened by Frederick J. Pfluke, Rochester Gas and Electric Corp., who will report as chairman of the Section. George C. Howard, Stanolind Oil and Gas Co., will review hydraulic fracturing in the petroleum industry. Progress in compressor station operations will be considered by Rex V. Campbell, Michigan Wisconsin Pipe Line Co., as chairman of the Section's Subcommittee on Compressor Stations.

For some time there has been an impetus toward interconnecting the nation's pipeline systems, to negate the possibility of interruption of service in the event of natural emergencies or enemy attack. The Federal government's attitude toward interconnections will be stated and discussed by a member of the Federal Power Commis-

Ten afternoon luncheon conferences are scheduled for New Orleans meeting. Presid'ng officers will include (left to right): T. B. Kelley, dispatching; R. V. Campbell, compressor stations; W. T. Bulla, communications; P. H. Miller, large volume gas measurement

sion staff, Carl Kallina.

Gas storage in a depleted oil reservoir, based on his company's experiences, will be discussed by William F. Burke, Lone Star Gas Co., following which F. A. Hough, Southern Counties Gas Co., will give a progress report on the revising of Section 8, on Gas Transmission and Distribution Piping, of Code for Pressure Piping, ASA B31. Mr. Hough is chairman of Subcommittee No. 8 of the ASA Sectional Committee B31, which is preparing the revision.

The session will close with a paper on the production of chemicals from gas, petroleum and coal by Dr. R. L. Bateman and T. R. Ragland, Carbide and Carbon Chemicals Company.

Five luncheon conferences are scheduled for each of the two days of the meeting. These will be the same type of informal, off-the-record discussion sessions which have proved so popular in the past. Beginning at lunch, the sessions will continue throughout the afternoon, or as long as is warranted by discussion from the floor.

Scheduled for the first day is a session on communications, under the gavel of Warren T. Bulla, Natural Gas Pipeline Company of America, as chairman of the Section's Communications Committee. Topics to be discussed are mobile radio for transmission and distribution systems, telephone service, microwave systems, and a review of the rules and regulations governing applications for radio service to the FCC.

The compressor stations conference, chairmanned by Mr. Campbell, will consider pulsation, water disposal, and gas turbines.

Pat H. Miller, Texas Eastern Transmission Corp., will preside at the session on large volume measurement, while W. B. Haas, Northern Natural Gas Co., will preside over a pipeline session. This last meeting will consider personnel and equipment requirements for pipeline operation and maintenance, right-of-way maintenance, internal cleaning and testing of transmission lines, and welding practices on operative high pressure transmission lines.

Mr. Goodman will preside over an underground storage session, which will hear reports of the subcommittees on deliverability problems, statistics, storage lease forms, and verifying storage inventory, following which there will be general discussion from the floor.

Friday luncheons

On Friday, a second compressor stations session will be presided over by Newell C. Comfort, Hope Natural Gas Co., as vice-chairman of the subcommittee. To be discussed are preventative maintenance of gas systems and gas cleaners.

The dispatching session, under T. B. Kelley, Texas Eastern Transmission Corporation, will consider the preparation of a manual outlining the functions of dispatchers, a task which is being undertaken by the Load Dispatching Committee, of which Mr. Kelley is chairman.

T. W. Johnson, Union Producing Co., as chairman of the Natural Gas Production Committee, will preside at a session which will further discuss the papers to be presented at the general sessions on drilling wells with gas or air as a circulating medium and hydraulic fracturing in the petroleum industry. Another session will feature a panel discussion on dehydration.

A second session on pipelines, presided over by A. J. Shoup, will consider right-of-way and damages related to construction, proof testing after installation, construction equipment limitations, and inspection during construction.

A special feature of the conference will be the showing of gas industry movies from 4 to 6 PM each day. Selected films of interest to gas industry men will be shown on a continuous basis and all delegates are invited to attend.

The program for the conference was developed by a committee consisting of the chairmen and vice-chairmen of the Section's committees on communications, large volume gas measurement, load dispatching, natural gas production, transmission, and underground storage. It is based upon their intimate knowledge of developments in and problems facing the gas industry.

Headquarters for the conference will be the Jung Hotel, which has already received a large number of reservations for the period. It is obvious that not all delegates will be able to be accommodated at the Jung. Other good hotels in New Orleans, however, are the Roosevelt, the St. Charles, and the Monteleone, all within short walking distance. Accommodations are being assigned on a first-come, first-served basis. All those planning to attend the conference are urged to submit their requests as soon as possible.

Industry news

Management Section program for '54

PLANS, PROGRAMS and aims of the General Management Section were considered at a meeting of the Section's Managing Committee in Chicago.

W. B. Tippy, executive vice-president, Commonwealth Services Inc., has been named chairman of a subcommittee to plan the Section's presentation during the A. G. A. Annual Convention in Atlantic City next October. Suggestions for subjects and speakers are solicited from all Section committee members.

Larry Shomaker, vice-president, Northern Natural Gas Co., has been named to head a committee to study the Section's long-range activities, with a view towards establishing policies for program administration, meetings and conferences appropriate to the entire Section or any grouping of interests.

Personnel of the Section's Nominating Committee has been announced. Members of the committee include: James S. Phillips, vice-president and general manager, United Fuel Gas Co., Charleston, W. Va., chairman; Walter E. Caine, Texas Eastern Transmission Corp.; James Comerford, Consolidated Natural Gas Co.; J. F. Fairman, Consolidated Edison Co. of New York, Inc.; Clayton E. Holmes, Natural Gas Pipeline Company of America; Fred R. Rauch, The Cincinnati Gas and Electric Co., and W. B. Tippy, Commonwealth Services, Inc. The Nominating Committee will select nominees for chairman, vice-chairman and the successor Nominating Committee for presentation at the Section's annual meeting.

The Managing Committee's next meeting will be held at the Edgewater Beach Hotel, Chicago, April 14, 1954. This meeting precedes the Sixth National Personnel Conference sponsored jointly by the A. G. A. Personnel Committee, the Employee Relations Section of Southern Gas Association, the A. G. A. Midwest Personnel Conference and the A. G. A. Great Lakes Personnel Conference.

Texas companies combine to form Pioneer Natural Gas

AMARILLO GAS CO., West Texas Gas Co., Dalhart Gas Company and Clayton Gas Company have been consolidated into one natural gas utility operating company named Pioneer Natural Gas Co., a Texas corporation.

Pioneer Natural Gas Company is now the natural gas utility company serving some 60 cities and towns throughout an area reaching from Clayton, N. M., on the north to Midland and Odessa, Texas, on the south. All communities served, including Amarillo, Lubbock and Plainview, are in west and northwest Texas except Clayton, New Mexico.

Principal officers of Pioneer are: George Baird, president; M. D. Snyder, vice-president and secretary; Thomas F. Cartwright, vice-president and treasurer; H. R. Budke, C. I. Wall and A. F. Cox, vice-presidents. Directors are P. C. Spencer, Joseph P. Walsh, George Baird, M. D. Snyder, Thomas F. Cartwright, Ross D. Rogers and George W. Dupree.

Pioneer has one wholly-owned subsidiary, Amarillo Oil Company, which is primarily a producing company, but handles field gathering, field compression, and extraction and sale of natural gasoline and liquefied petroleum products. Amarillo Oil has acquired the assets and liabilities of Red River Gas Co.

Officers of Amarillo Oil Company are: A. F. Cox, president, T. S. Whitis and William L. Darrah, vice-president; M. D. Snyder, secretary, Thomas F. Cartwright, treasurer.

Pioneer is owned 100 percent by Southwestern Development Company, a registered public utility holding company with offices in New York. A meeting of the stockholders to vote on the liquidation and dissolution of southwestern will be held in Amarillo on Feb. 15. In the event of approval, the former Southwestern Development Company seven-company system will have been transformed into a two-company system, a simplification which is expected to have many operating advantages.

All employees of the companies concerned have been retained.

Pittsburgh natural gas company continues growth

THE PEOPLES NATURAL Gas Co., Pittsburgh, is plunging forward in its current drive to supply better service in its territory.

The company expects to spend $5,200,000 in 1954, in addition to the $9 million spent in 1953. The improvement program includes the building of additional operating equipment, service area improvements, underground storage, local drilling for new gas supplies, additional househeating facilities, and two pipeline projects.

The estimated peak daily demand for the 1953-54 heating season has been placed at 471 million cubic feet.

Network television show plugs quality ranges

Bob Crosby, CBS television personality, poses with Marilyn Hare, who gives commercial on his network show. Star of show, during segment sponsored by Tappan Stove Co., is a deluxe gas range. Mr. Crosby switched from electric to gas, as a result of Miss Hare's proof that "Gas Has Got It" for cooking.

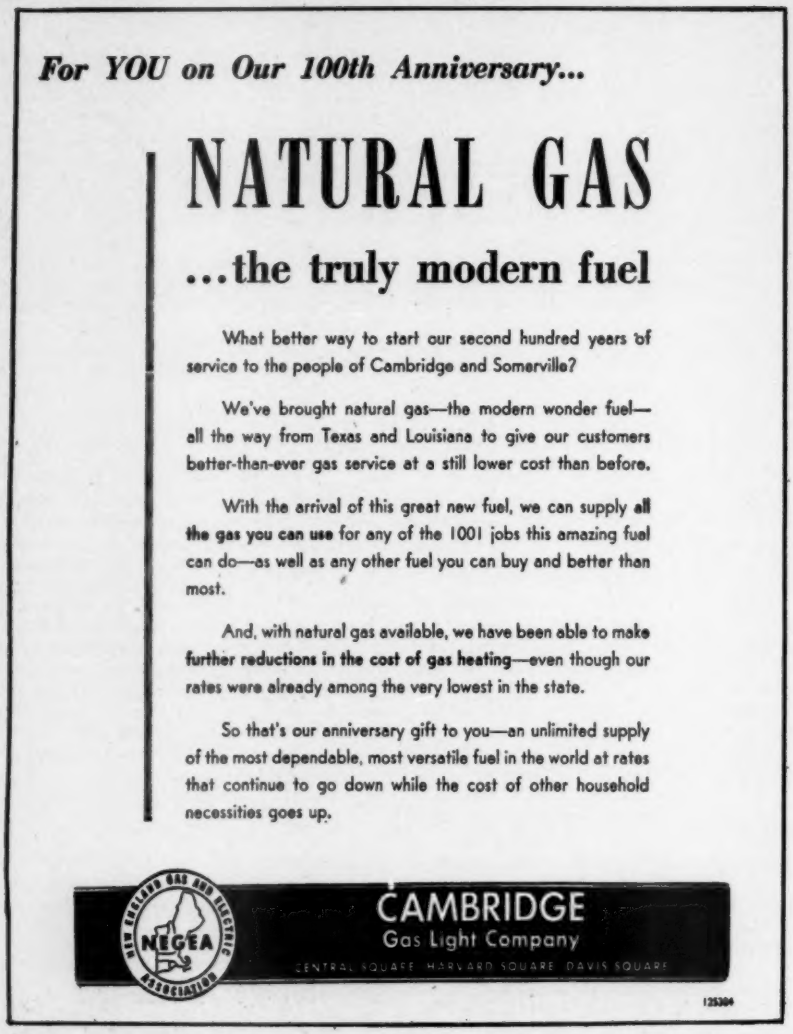
Gas storage service

TEXAS EASTERN Transmission Corp., Houston, and a wholly owned subsidiary have applied to the Federal Power Commission to approve a project involving a gas storage service for Transcontinental Gas Pipe Line Corporation.

Under the plan Texas Eastern will store 12 billion cubic feet of natural gas per year for Transcontinental, delivering the gas in the winter at a maximum rate of 133,500 Mcf of gas per day and receiving redelivery from Transcontinental during the summer months. Transcontinental has agreements covering a 20-year period with seven of its customer companies in the New York, New Jersey, and Philadelphia areas, providing for redelivery to such companies under identical terms as the Texas Eastern-Transcontinental contract.

The plan would greatly benefit residential customers of the participating distributing companies because it would make large volumes of gas available for winter space heating available.

Newspaper ad celebrates important date


For YOU on Our 100th Anniversary...
NATURAL GAS
...the truly modern fuel
What better way to start our second hundred years of service to the people of Cambridge and Somerville?
We've brought natural gas—the modern wonder fuel—all the way from Texas and Louisiana to give our customers better-than-ever gas service at a still lower cost than before.
With the arrival of this great new fuel, we can supply all the gas you can use for any of the 1001 jobs this amazing fuel can do—as well as any other fuel you can buy and better than most.
And, with natural gas available, we have been able to make further reductions in the cost of gas heating—even though our rates were already among the very lowest in the state.
So that's our anniversary gift to you—an unlimited supply of the most dependable, most versatile fuel in the world at rates that continue to go down while the cost of other household necessities goes up.
NEGEA
CAMBRIDGE
Gas Light Company
CENTRAL SQUARE HARVARD SQUARE DAVIS SQUARE
125304

The perfect gift—a promise of continued, dependable, economical gas service

Pittsburgh promotions

PITTSBURGH will go gas in '54 . . . a good omen is the recently announced advertising and promotion budget of natural gas companies in the area, which add up to a staggering $2,207,600!

Tieing in with American Gas Association's nationwide sales campaigns, The Peoples Natural Gas Co., Equitable Gas Co., and The Manufacturers Light & Heat Company will strike out for the area's fuel and appliance market from February to late Fall.

In February and March, distributors and dealers, in addition to the spearheading utilities, will join in a laundry equipment campaign, headlined by the theme, "From start to finish, you are ahead with gas".

In April and May, every Pittsburgher will know that the new gas ranges are "Matchless in Quality and Performance". During the summer, gas refrigeration will be plugged, and next Fall, ranges and laundry equipment again will be promoted.

Preliminary plans for the year-around promotion were laid on December 3, 1953 at a meeting in the William Penn Hotel, Pittsburgh. Keynote speakers at the meeting were all men who had participated actively in A. G. A. gas promotions during 1953: Charles L. Yost, The Peoples Natural Gas Co.; Robert Lowe, The Manufacturers Light & Heat Company and Thomas H. Evans, Equitable Gas Company.

Offer scholarships

TWENTY SCHOLARSHIPS, each worth $1,094 in tuition and stipends for two years' study, have been established for chemical and mechanical engineering students preparing for careers in the utility gas industry.

The scholarships are being offered by the Institute of Gas Technology, Chicago.

Applications now are being accepted by the gas institute for entrance in September.

The scholarships are for study in the junior and senior years and one summer term. The specialized study is in the form of a gas technology option of the bachelor of science programs in chemical or mechanical engineering at Illinois Tech.

Colorado company increases facilities and service

NEW AND ADDITIONAL FACILITIES, constructed during the last six months of 1953 by Colorado Interstate Gas Company at a cost of about $20 million, are now in operation.

The Colorado Springs transmission company announces that the new facilities have added a total of 82,500,000 cubic feet daily to its delivery capacity. The company is now able to bring a total of 508 million cubic feet of natural gas each day to its territories in the Rocky Mountain region.

A.G.A. sales aid catalog points way to successful promotions

PREMIUMS, AWARDS and sales literature to stimulate gas promotions are profusely illustrated in the initial edition of *1954 Catalog of the A. G. A. Sales Promotion Aids* issued by the American Gas Association Promotion Bureau.

From plastic bowl covers to aluminum ware and TV spot announcements, this 32-page catalog is a handy reference and thought starter for premium and give-away ideas to serve utilities and dealers planning promotions, sales campaigns, cooking schools or other sales and public interest events. This catalog is matched to help implement all-year-round campaigns outlined in *The Gas Industry's 1954 Sales Promotion Plan Book.*

In addition to a section on "How to use the premiums," contents are indexed to show products costing up to 10¢; 11¢ to $1; $1.01 and up; Consumer booklets, sales aids including Sales-Maker manuals, postage meter slugs, New Freedom Gas Kitchen literature, Pattern for Profit dealer sales stimulators, and commercial gas cooking material.

One to three copies are free to dealers and utilities, while additional copies are obtainable at 50 cents each. Requests should be addressed to the Promotion Bureau, American Gas Association, 420 Lexington Ave., New York 17.

Industry now serves 27 million, continues rapid growth

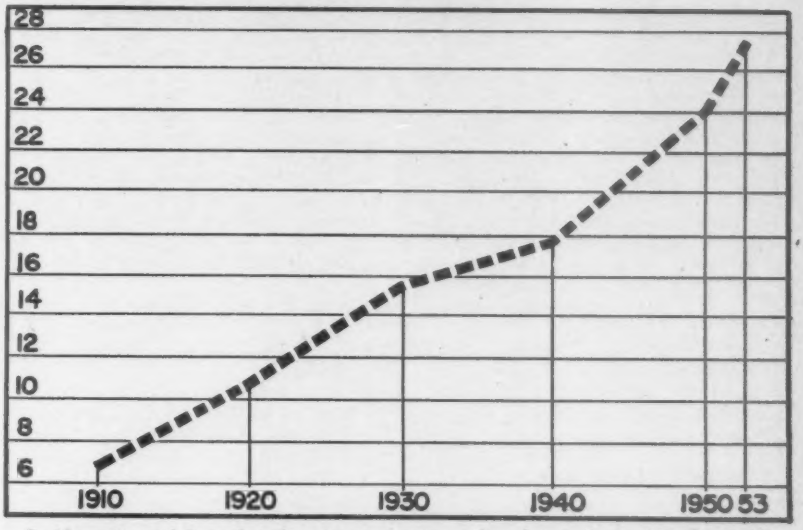
SOMETIME DURING December, the gas industry celebrated a milestone—the addition of its 27 millionth customer. By the end of 1953, there were 27,156,000 consumers receiving gas service through utility mains, an increase of 3.0 percent over 1952.

Over a period of 43 years, the industry has more than quadrupled the number of customers it is serving. The rate of growth during the eight post-war years has averaged 4.2 percent annually, comparing favorably with an annual average rate of growth of about 2.7 percent during the eight years preceding World War II.

This phenomenal expansion during the postwar period has been attributed primarily to the tremendous growth in new urban dwelling units, which in the past five years have averaged 1,140,000 units annually. Extension of gas service to communities not previously located on gas lines, particularly in the South, and the continued conversion of many utilities to natural gas distribution with improved customer acceptance are factors which have also contributed to the increase in gas customers.

In a survey undertaken by the Bureau of Statistics in the early part of 1951 it was indicated by reporting utilities that 96 percent of all new dwelling units built within "free allowance" areas utilized gas for one or more purposes. Thus, it can readily be seen that the continued customer growth will depend to a very great extent upon future housing construction. Estimates for 1954 vary from a low of 900,000 to a high of 1,000,000 new housing starts.

The rate of customer growth while above that of the prewar period has nevertheless declined slightly in the past two years. Therefore, any further declines in new urban construction will tend to continue this downward trend. Indications are that the industry can expect to gain approximately 800,000 new gas users in the coming year.



Rapid recent growth in number of gas company customers throughout nation is reflected in graph

Pittsburgh company helps employees anticipate retirement

OLDER EMPLOYEES of The Peoples Natural Gas Co., Pittsburgh, are benefiting from a four-point retirement indoctrination program. The new program aims to solve retirement headaches well in advance of the last working day; to give the retiree a picture of the problems he may face; to stimulate organized thinking about suitable interests and activities; to generate action on individual retirement plans.

Four meetings for employees past 60 years of age deal with the philosophical, medical, economic and case history phases of retirement. Group discussions encourage a healthy attitude toward retirement, and build confidence in facing the future with an optimistic outlook.

Attendance at the meetings is voluntary, but early reports indicate that all eligible employees are taking advantage of the program.

Co-originators of the planned retirement program are Larry E. Ostrye, assistant to the president and Charles V. Hoey, assistant personnel director.

Suburban enlarges

SUBURBAN PROPANE Gas Corp., Whippany, N. J., has completed purchase of all outstanding capital stock of Natural Gas Co., Hammonton, N. J. and Fuelite Natural Gas Corp., Lexington, Massachusetts.

Mark Anton, president of Suburban, announced that the transaction adds more than 60,000 customers to the company's operations, bringing the total number served with bottled gas to over 400,000. Mr. Anton also declared that Suburban now has an uninterrupted distribution area from Maine to South Carolina.

PCGA record out

PACIFIC COAST GAS ASSOCIATION has published its eagerly awaited 1953 *Proceedings*, compiled and edited by the association's managing director, Clifford Johnstone. The 167 page volume includes a section on association committee members and leaders, in addition to records of the sixtieth annual meeting of PCGA held on September 9, 1953, in San Francisco.

Florida queen awards prize gas range

Phyllis Sherman, Old Stove Round Up Queen of Peoples Water and Gas Company, North Miami, Fla., congratulates Mrs. R. E. Howard, Fort Lauderdale, on winning a new gas range during recent contest

A.G.A. calls for cooperative action on industry development

AMERICAN GAS ASSOCIATION will solicit the active cooperation of all regional and state gas associations of the U. S. and Canada together with the Independent Natural Gas Association of America and the Gas Appliance Manufacturers Association in combined efforts to reach common objectives through the adoption of policies and programs of mutual interest.

A special resolution to this effect was passed recently by the A. G. A. Board of Directors. The resolution called for A. G. A. to "cooperate with these associations and their members in coordinated action to improve and promote gas service and to develop the entire gas industry in the best interests of the public."

The resolution noted that "objectives of the American Gas Association are to promote and develop the gas industry, to aid its members in the United States and Canada to serve to the fullest extent possible the best interests of the public, and to cooperate with other organizations interested in like objectives."

In addition, the resolution noted that "execution of the Gas Industry Development Program during the past year, and of other programs of an industrywide nature in which the American Gas Association has enjoyed the effective cooperation of its regional and state affiliated organizations and the Gas Appliance Manufacturers Association, has demonstrated the desirability and potentialities of cooperative action.

"The gas industry can be served more fully," the resolution continued, "through further cooperative action by all elements of the industry in aggressive, forward-looking programs of promotion and development."

A.G.A. announces new publications during January

LISTED BELOW are publications released during January up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication is aimed.

ACCIDENT PREVENTION

• **How Injuries to Gas Men Might Be Avoided** (for safety and operating personnel). Prepared by Howard Cook, and available from A. G. A. Headquarters, ten cents a copy.

ACCOUNTING

• **Auditing Case Studies, Case 101-110** (for all accountants) Sponsored by A. G. A.-E.E.I. Internal Auditing Committees. Available free from A. G. A. Headquarters, New York.

• **Study of 56 Gas and Electric Company Annual Reports to Stockholders for 1952** (for all utility accountants). Prepared by A. G. A.-EEI Subcommittee on Financial Reporting. Available free from A. G. A. Headquarters.

PROMOTION

• **1954 Catalog of A. G. A. Sales Promotion Aids** (home service directors, sales managers, promotion managers). Prepared by and available from the A. G. A. Promotion Bureau. One to three copies, free; four or more, 50 cents.

RESEARCH

• **A Study of Wear and Service Performance of Gears Surface Hardened by Induction Heating and by High-Speed Direct Gas Heating** (for companies having industrial sales departments). Prepared by W. S. Hyler and H. J. Grover, Battelle Memorial Institute, one dollar a copy. Available from A. G. A. Headquarters.

STATISTICAL

• **Monthly Bulletin of Utility Gas Sales, November** (for gas companies, financial interests). Available from the A. G. A. Bureau of Statistics, free.

Reginald H. Hargrove

founder and president of Texas Eastern Transmission Corp., Shreveport, lost his life in an airplane accident on January 10. Mr. Hargrove, 57, had served as president of American Gas Association in 1947, and was active in Association affairs at the time of his sudden death.

Mr. Hargrove had been a leader in the utility field for more than 24 years. Educated at Rice Institute and an Army officer during World War I, he was appointed general manager of the Caddo Abstract Co., Shreveport in 1919. In 1928, Mr. Hargrove joined the Palmer Corp., which later became a subsidiary of the United Gas Corporation and in 1929, he was elected vice-president of Louisiana Gas & Fuel Company and subsidiaries, which included the Palmer Corporation. A year later he was elected vice-president of the newly-formed United Gas Corporation.

From May 1931 until September 1937, he served as vice-president of United Gas Public Service Co., chief operating subsidiaries of United Gas Corporation. In 1937, he was elected vice-president and general manager of United Gas Pipe Line Co., Union Producing Co., and United Oil Pipe Line Company. In 1944, he was elected vice-president of United Gas Corp., parent company of all these subsidiaries. He resigned in 1946 to found the Texas Eastern Transmission Corporation, operators of the Big Inch and Little Inch pipelines.

In addition, Mr. Hargrove was former acting assistant deputy administrator for the Petroleum Administration for Defense, a post to which he was appointed in 1951.

This year, Mr. Hargrove was a member of the A. G. A. Finance Committee, and the Committee on Arrangements for the International Gas Union Conference in 1955.

Charles J. Ramsburg

retired senior vice-president of the Koppers Co., Pittsburgh, died at the age of 76 on January 17.

Mr. Ramsburg was a pioneer in the development of by-products from coal and natural gas, and was a winner of the gas industry's 1909 Beal Medal for his research.

John L. Conover

retired general manager of Public Service Electric & Gas Co. of New Jersey, Newark, died on January 15 at the age of 75.

In 1930, Mr. Conover received the Charles A. Munroe Award of the American Gas Association "for the most outstanding contribution during the year in the general interest of the gas industry" for his accomplishments in the field of machine accounting.

At the time of the presentation, Mr. Conover was serving as chairman of the A. G. A. Accounting Section and auditor of the utility's gas department. He was an active member of A. G. A. until his death.

R. H. Burdick, Sr.

died on December 22 in Birmingham, Ala., at the age of 69. In June 1950, Mr. Burdick retired as vice-president and chief engineer of Southern Natural Gas Co., and at the time of his death was a consultant with the company. He had served Southern Natural since 1937.

Mr. Burdick was a member of American Gas Association.

Arthur F. Benson

vice-president of American Meter Co., died of a heart attack at the age of 58.

Mr. Benson had been associated with the company since 1930.

He was active in American Gas Association, and at the time of his death was a member of the Operating Section's Measurement Committee. He was also a member of the A. G. A.-ASME Joint Committee on Fluid Meters, a research project of testing large diameter gas lines.

Howard F. Weeks

editor of the American Gas Association MONTHLY from 1926 to 1929, died on January 3 at the age of 50.

At the time of his death, Mr. Weeks was an associate editor for Dun and Bradstreet Inc., New York. During his career, Mr. Weeks also had been news editor, *Gas Age* Magazine, assistant advertising manager, Consolidated Gas Co., New York, director of the editorial bureau, Edison System Companies, and associate editor of the *American Gas Journal*.

Mr. Weeks served as president of the Public Utilities Advertising Association in 1938.

Thomas Lever succeeds Hudson Reed at Philadelphia Gas Works

HUDSON W. REED has resigned as a director and vice-president of The United Gas Improvement Co., and also as general manager of the Philadelphia Gas Works Division. Thomas S. Lever succeeds Mr. Reed as vice-president of U.G.I. and general manager of the Philadelphia Gas Works. George R. Bailey of Harrisburg has been elected a director, to fill the vacancy created by Mr. Reed's resignation.

Mr. Reed had been associated with the gas operations in Philadelphia since 1936, when he became vice-president and general manager of The Philadelphia Gas Works. He had been president of The Philadelphia Gas Works Company from 1942 until its merger into U.G.I. on January 1, 1953, when he assumed the titles he held at the time of his resignation. Among his many outstanding services to the industry was his term as president of the American Gas Association in 1948. In addition, Mr. Reed serves this year as a member of the A. G. A. Advisory Council and the PAR (Promotion Advertising Research) Review Committee.

Mr. Lever has been associated with The Philadelphia Gas Works for a great many years, starting in the distribution department. The intervening years found him directing operations in the employment and inspection division, the internal audit department, the commercial department and then as vice president in charge of accounting. When the U.G.I. merger occurred in January, 1953, he became director of finance and accounts for the Philadelphia Gas Works Division. He is a past-president of the Pennsylvania Gas Association, an active member of the National Association of Cost Accountants and Controllers Institute.

Hudson W. Reed

Thomas S. Lever, Jr.

Personal and otherwise

Morris made A.G.A. Washington representative

CURTIS MORRIS, transmission line consultant, American Gas Association, and former vice-president, Transcontinental Gas Pipe Line Corp., has been appointed Washington representative of A. G. A. He will take charge of the new Association office located at Room 804, Securities Building, 729 15th Street, N.W., Washington, D. C., where he will give full time service to member companies of the Association.

With Transcontinental, Mr. Morris engaged in legislative, tax and public relations matters for the corporation. Before joining Transcontinental he represented Texas public and private agencies in Washington in the Tidelands case.

Mr. Morris succeeds George H. Smith as Washington representative of A. G. A. Mr. Smith was retired on December 31, 1953, as assistant managing director of A. G. A., an office he held since he joined the Association in 1944.

Norman appointed president of Colorado Oil and Gas in Denver

W. C. NORMAN has been elected president of Colorado Oil and Gas Corp., Denver, until recently a wholly-owned subsidiary of Colorado Interstate Gas Company. He fills the vacancy created by the resignation of Robert W. Hendee, who also formerly was president of Colorado Interstate Gas Company.

In addition, John W. Hopkins has been named general superintendent and L. M. Stone has been appointed controller of Colorado Interstate Gas Co., Colorado Springs. Mr. Hopkins will supervise pipeline operations, compressor stations, gas measurement, dispatching and communications. Mr. Stone will assume controllership from J. P. Roetzel, who has been serving as both vice-president and controller.

For the past two years Mr. Norman has been a partner in Lambert and Co., capital investment firm. He resigned there when named to the presidency of the Colorado Oil and Gas Corporation.

As former vice-president of Tennessee Gas Transmission Co., Houston, Mr. Norman also was president of Northeastern Gas Transmission Co., a subsidiary of Tennessee Gas. During his tenure in the latter position he was responsible for the extension of natural gas service into the New England states.

Mr. Norman has been associated with the oil and natural gas industries for many years. He was an officer of Tennessee Gas Transmission Company from 1943 until he resigned in 1952 to join Lambert and Company.

Previously he had been associated with Union Sulphur and Oil Corporation and the oil and gas division of the Chicago Corp., Corpus Christi, Texas. He also was associated with Arthur Andersen and Co., Houston, certified public accountant firm.

Mr. Hopkins started with the company in 1929 as a mechanic. In 1932, he was named chief engineer, in 1942 master mechanic and in 1944 superintendent of compressor stations. He is a member of American Gas Association.

Mr. Stone joined the company in 1952 as assistant controller. Before his association with the company, he worked for Arthur Young and Co., certified public accountants, Gulf Oil Corp., and Shell Oil Company.

Board renames Gellert

HENRY GELLERT, president of the Seattle Gas Co., has been reelected a board member of the National Industrial Conference Board for a term of one year.

Mr. Gellert has been active in the work of the Conference Board since 1950.

Founded in 1916, the board is an independent and nonprofit institution for business and industrial fact finding through scientific research.

Mr. Gellert is a director of A. G. A. and a member of the Gas Industry Advisory Council, Petroleum Administration for Defense.

Fidlar elected exploration vice-president

M. M. FIDLAR, former manager of exploration, Mountain Fuel Supply Co., Salt Lake City, is now the company's vice-president in charge of exploration.

Mr. Fidlar received his Ph.D. in geology at Indiana University in 1942. He was assistant state geologist and state gas supervisor for the Indiana State Department of Conservation, 1936-38. He was Indiana district geologist for The Ohio Oil Company for the next five years.

Mr. Fidlar joined Mountain Fuel in 1943 as senior geologist. He became the company's chief geologist in 1945, and manager of exploration in 1951. He is author of several geological papers and articles.

Mr. Fidlar is a fellow of the Geological Society of America, American Association for the Advancement of Science, and the American Geophysical Society. He holds memberships in American Association of Petroleum Geologists, American Institute of Mining & Metallurgical Engineers, and the Rocky Mountain Oil & Gas Association. He is an associate member of Independent Petroleum Association of America.

Lone Star promotes nine executives to meet growth problems

LONE STAR GAS CO., Dallas, has increased its executive staff to include six new vice-presidents and an executive vice-president, and has promoted two vice-presidents to the rank of senior vice president. The action is designed to meet increasingly complex problems resulting from tremendous growth of the company and its operating territory.

Vice-Presidents Elmer F. Schmidt and Chester L. May, both members of the board of directors, were elected senior vice-presidents. L. T. Potter, assistant to the president, was elected executive vice-president and a member of the board of directors. Marshall Newcomb, general counsel and member of the board, was elected a vice-president.

Other new vice-presidents are Julian L. Foster, E. A. Brown, M. L. Bird, W. F. Wright and Joe C. Darrow. With the exception of Mr. Bird, all are members of American Gas Association.

Mr. Schmidt has long been a leader in gas conservation methods. He joined Ohio Fuel Supply Co., Charleston, W. Va., in 1912, joined Fayette County Gas Co., Uniontown, Pa., in 1914 and returned to Ohio Fuel Supply in 1915. While there, he contributed to the development of instruments used in gas measurement, one of which was adopted by the U. S. Bureau of Standards.

Since Mr. Schmidt joined Lone Star in 1918, he has served as head of gas measurement, chief engineer and general superintendent. He was elected vice-president in 1935 at which time he was also elected to the board of directors.

Mr. Schmidt served as chairman of the A. G. A. Natural Gas Department in 1940. He is also a member of American Petroleum Institute.

Mr. May pioneered in building gas distribution systems for southwestern communities. He began as an apprentice in the Ohio natural gas fields in 1910 and came to Texas in 1917 to make a survey of Lone Star Gas Company properties for Ohio Fuel Supply Company. He remained in Texas to become chief inspector, superintendent of gas measurement, and superintendent of distribution properties. He served as president and general manager of two Lone Star affiliates. In 1942 when the company was reorganized, Mr. May was named vice-president in charge of all distribution operations. He was elected a company director in 1949.

E. F. Schmidt

C. L. May

L. T. Potter

Marshall Newcomb

Mr. May is active in A. G. A. affairs. He is also a past-president of Southern Gas Association and Texas Manufacturers Association, and a director of National Association of Manufacturers.

Mr. Potter, newly-appointed executive vice-president, has been with Lone Star since 1928. He started in gas measurement, later served as production engineer, production superintendent, and assistant superintendent of the transmission division. In 1947, he was appointed assistant to the president. Mr. Potter has served in various capacities with A. G. A. and other gas industry groups. In addition, he has served as a consultant to the Petroleum Administration for Defense.

Mr. Newcomb has represented the company in important litigations and legal transactions including reorganization of the company in 1942. He joined the company in 1927, was named assistant general attorney in 1935 and in 1944, general attorney. He was appointed general counsel in 1948, and was elected to the board of directors in 1949. This year, he serves as chairman of the mineral law section, American Bar Association.

Mr. Foster joined Lone Star in 1918. He has served as assistant general superintendent, general superintendent, chief engineer and superintendent of the transmission division.

Mr. Brown has served the company since 1932 as clerk, office production engineer, assistant production engineer, chief production engineer, superintendent of production and manager of exploration and gas supply.

Mr. Wright has been general manager of Dallas distribution operations since 1944. He has been active in both A. G. A. and SGA.

Mr. Bird joined the company in 1925 as a construction engineer. In 1949, he was named operating manager of the general division of distribution including more than 370 towns.

Mr. Darrow has been associated with Lone Star Gas since 1927. In 1951, he was appointed to his position as general manager of the Fort Worth division of distribution.

Wilson retires as head of Columbia's Preston Oil Company

DON M. WILSON, president of the Preston Oil Co., oil subsidiary of The Columbia Gas System, has retired after 44 years of service with Columbia System companies.

President of the system's oil group subsidiaries since 1943, Mr. Wilson has been a director of every operating company in the system and an officer in each of the operating groups during his long career.

In 1909, he went to work for The Logan Gas Co., Mansfield, Ohio. In 1926, when the Columbia Gas System was formed, Mr. Wilson was named vice-president and director of The Ohio Fuel Gas Company. During the years, he has served the Pittsburgh Group, the Columbia Engineering Corp., the Atlantic Seaboard Corp., Columbia Oil & Gasoline Corporation.

Mr. Wilson is a member of American Gas Association.

Praeger joins Binghamton utility, Brooklyn names Rider

HOWARD A. PRAEGER has been appointed manager of public information of the New York State Electric & Gas Corp., Binghamton, New York.

Until recently, Mr. Praeger was manager, publicity and advertising, The Brooklyn Union Gas Company. He is succeeded in this position by Frederick H. J. Rider.

Before joining Brooklyn Union, Mr. Praeger served the F. S. Cropts Co., as field editor. In that capacity, he covered every region of the United States interviewing authors and evaluating manuscripts.

Mr. Praeger was graduated from the University of Arizona and completed graduate study at Harvard and New York Universities. A veteran of World War II and the Korean crisis, he served as an Army counter intelligence officer and in psychological warfare.

Mr. Praeger is a member of the American Gas Association's Public Information Committee, the Public Utilities Advertising Association and the Overseas Press Club of America.

Mr. Rider has served Brooklyn Union since 1931, and has been in the publicity and advertising department since 1948 as assistant manager. He was in charge of the department from 1951 to 1953, when Mr. Praeger was on military leave.

Mr. Rider, too, is a member of American Gas Association.

Adams trustee of Battelle

DR. ROGER ADAMS, internationally known chemist and educator, has accepted an appointment to the board of trustees, Battelle Memorial Institute, Columbus.

Head of the University of Illinois department of chemistry and chemical engineering, Dr. Adams has achieved wide recognition for his research on stereochemistry and natural products.

A former president and chairman of the board of directors of the American Chemical Society, Dr. Adams is an honorary fellow in five European national chemical societies. He is editor-in-chief of *Organic Reactions*.

In addition to six honorary doctorates, Dr. Adams holds three degrees from Harvard University.

Porter and Corson move to higher positions in Philadelphia

EDWARD PORTER has been named senior vice-president, Philadelphia Electric Company. He is succeeded in his former position of vice-president in charge of finance and accounting by A. S. Corson.

Mr. Porter has been associated with the public utility business in the Philadelphia area throughout his business career. In 1928 he was transferred from The United Gas Improvement Co., where he was serving as general auditor, and made comptroller of the Philadelphia Electric Company. A year later he was elected vice-president and comptroller. He was elected vice-president and a director of the company in 1943.

Mr. Porter is well-known as a finance and accounting expert, and has been active in the affairs of many utility organizations. He is a member of American Gas Association.

Mr. Corson also has spent his entire business career in the utility field. Since 1949 he has been comptroller of Philadelphia Electric, and prior to that assignment he was vice-president of The United Gas Improvement Company. He is active in the affairs of American Gas Association, Edison Electric Institute, Pennsylvania Gas Association, Pennsylvania Electric Association and Controllers Institute.

E. Porter

Mr. Corson

Reorganize Pittsburgh technical and engineering personnel

A MAJOR realignment of its engineering organization and staff has been announced by the Pittsburgh Group Companies, Columbia Gas System.

Designed to free the engineering department of all responsibilities except planning and design, the change consolidates related engineering activities in a new technical operations department.

Headed by H. R. Weitzel, formerly superintendent of compressor stations, the technical operations department includes the civil engineering, communications, and gas measurement sections.

Section heads within the new department include J. A. Loudon, chief civil engineer; D. K. Ruth, communications engineer; R. L. Welch, supervisor of gas measurement, and H. W. Goodrich, office manager.

A. B. Lauderbaugh, chief engineer, continues as head of the engineering department. Among his new aides are C. B. Heist, senior gas engineer, and F. E. Costanzo, corrosion engineer.

G. G. Dormer, formerly assistant chief engineer, has been named assistant superintendent of compressor stations to replace Mr. Weitzel.

Assigned to the transmission department as transmission corrosion engineer was N. P. Peifer. P. N. Kuzmich has been assigned to the Distribution Department as distribution corrosion engineer.

Daly elected A.G.A. assistant treasurer

JAMES F. DALY, assistant controller of the Long Island Lighting Co., Mineola, has been elected assistant treasurer of the American Gas Association.

Active in A. G. A. affairs for many years, Mr. Daly has served on several committees, including General Accounting, Accounting Employee Relations, and Accounting Development Service. He is currently a member of the General Accounting Committee.

Mr. Daly has been associated with the Long Island Lighting Company for more than 25 years.

Quinn succeeds Olvey

PAUL E. QUINN has been named manager of the Elizabeth and Suburban Gas Co., Elizabeth City, North Carolina.

Mr. Quinn has been district manager of the Indiana Gas and Water Co., Bloomington, Ind., for the last 10 years. In Elizabeth City, he succeeds Leroy Olvey.

Gas industry pioneer retires from Pacific Gas

FREDERICK F. DOYLE, a pioneer in the natural gas industry, has retired as director of gas supply and control, Pacific Gas and Electric Co., San Francisco.

Mr. Doyle, a chemical engineering graduate of the University of Pennsylvania, was first employed by the United Gas Improvement Co., Philadelphia, in 1912. Before joining Pacific Gas, he served the Kansas Natural Gas Co., Midway Gas Co., Taft, Calif., and Southern California Gas Co., Los Angeles. In addition, he has been manager and a director of Standard Pacific Gas Line Inc. since 1930.

Mr. Doyle was a member of the Natural Gas Association of America, which was later merged with American Gas Association, and at present is a member of A. G. A. In addition, he is a member and former director of Pacific Coast Gas Association, a member of American Petroleum Institute and a director of the California Natural Gasoline Association.

Moore Publishing elects

JAMES H. MOORE, JR. has been elected president of Moore Publishing Company. The company publishes several gas industry magazines including *Gas Age, Gas Appliance Merchandising, Industrial Gas, LP Gas* and *Brown's Directory of American Gas Companies.*

J. H. Moore

Mr. Moore succeeds his father, now chairman of the board and chief executive officer. The new president, 32, is a graduate of the Loomis School and Yale University. He has served Moore Publishing since 1947 and has been general manager for the past two years. He served in the Army as a captain and was associated with J. K. Lasser & Co., New York.

Lee follows Tracy as San Francisco manager

HARRY A. LEE has been named San Francisco division manager of the Pacific Gas and Electric Co., to succeed Grover S. Tracy who retired on December 31.

Mr. Lee had been San Francisco division sales manager since 1946 and for 20 years prior to that had been sales manager in two other PG&E divisions. He is a 31-year veteran of the company who began as a general construction laborer.

Mr. Tracy's retirement brought to a close a utility career that began three months after the earthquake and fire of 1906.

W. L. Greer has been appointed manager of the San Francisco division to succeed Mr. Lee. Mr. Greer was commercial manager of the Sacramento division.

Ebasco promotes sales and public relations executives

W. H. McINNIS has been named manager, and M. G. Kennedy has been appointed assistant manager of the sales, marketing and public relations department, Ebasco Services Inc., New York.

He has been associated with the Ebasco System since 1931, and for the past four years was assistant manager of the department he now heads. His previous experience includes marketing and sales work for Sierra Pacific Power Co., Tennessee Public Service Co., Memphis Power & Light Company and other combination gas and electric utility companies. He is a member of American Gas Association.

Mr. Kennedy has served the utility industry since 1930 when he joined the Pacific Power & Light Company. In 1950 he became a sales and public relations consultant with Ebasco.

Research unveils range units

(Continued from page 8)

The burner used to illustrate this valve's performance is a commercially available single-duty burner of recent design with primary emphasis on simple construction and flexibility of operation with relatively high port loading. This unit was selected because its unique port shape and design enable its use on all city and peak load gases, while still retaining good efficiency and low turndown rate on a single-duty burner head. Its flame retention principle is one possible method of achieving some of the objectives illustrated with our experimental burners for improved appearance, cleanability, and effectiveness of heat application with precision control. The burner, now mounted with an adapted ignition system, has a minimum heat input of less than 450 Btu per hour for low temperature operations and an efficiency of 42.5 percent at full heat input. Incidental investigation with respect to a lower burner heat input rating, aeration bowl design, and burner position has indicated that this burner has an efficiency of 54.2 percent at a full heat input rating of 7,000 Btu per hour.

Another possibility for improving heat control is shown with the needle-type valve for the right front burner (Figure 5), which has a total rotation of 270 degrees with an effective span of 200 degrees. By modifying the taper of the moving pin, changing the thread pitch for its travel, and relocating the rotation stop, we have approached the type of control desired with a single-duty contemporary valve. Then, to provide for separate ignition port gas supply featured with double-duty valves, a small by-pass was added external to the valve body.

A third new method for controlling top burner heat is represented separately (Figure 6). This product of an independent inventor has the desired characteristic of linear heat control and makes "number cooking" possible. The important working part is a small brass sleeve with a wedge-shaped opening which is gradually opened as more heat is desired.

Valves capable of giving the precision control exhibited here would, of course, be more expensive than conventional types. However, we believe this added expense is justified.

Indirect oven

Advantageous features of this experimental oven are: (1) fast preheat and low heat loss to the kitchen, (2) excellent baking characteristics, (3) very low oven maintaining temperature, (4) cool surfaces, (5) small burner (about one-half the volume of contemporary oven burners) representing savings on materials of construction, (6) low input automatic pilot, (7) adaptability for inclusion in a complete gas range without any special problems providing a separate (high) broiler is used, and (8) explosion-proof design.

This indirect oven is heated by the passage of hot gases from the burner up around the right and left sides and back across the top of the oven compartment. No combustion products enter the oven baking compartment. With a nominal input rate of 21,000 Btu per hour to the small circular experimental burner and six percent CO_2 in the flue gases, we have cut flue losses to the kitchen by 15 percent, as compared with many typical "fresh air" ovens. The average oven surface temperature rise is 35 percent less than that of several typical fresh air ovens. The 100 Btu per hour pilot heats the oven to 98F on an 80 degree day. Obviously, safety, economy and speed of operation, and cooler operation are prime achievements in design.

Speed of preheating to a balanced oven temperature of 400F is only 5½ of the 10 minutes permitted by requirements. This oven gives uniform baking and browning of standard test cakes, pumpkin pies, and buttermilk biscuits.

The burner used in this demonstration may be turned down so that, with its automatic pilot, a minimum by-pass rate of 1,000 Btu per hour is obtained. This low rate makes it possible to maintain an oven temperature of only 190F on an 80 degree day. This is really maintaining a low oven temperature! A potentiometer bearing witness to maintenance of low oven temperature is on hand for your inspection later.

You may recall this oven was labeled "explosion-proof." We tried to blow it up with both natural and manufactured gases. Delayed ignition at either the burner or flue outlet caused no damage, and the oven door stayed closed throughout the gamut of lean to rich explosive mixtures. The severest reaction obtained with flash back from the flue only tended to open the combustion chamber door a fraction of an inch. We feel that this is a vitally important safety development.

The experimental burner was designed for city gases with flexibility on peak load gases, as well as for good turndown characteristics. It has not been perfected for use on liquefied petroleum gases, although we feel this can be done. Its physical size is only half that of typical oven burners.

Another important feature of this oven is that its performance is not particularly dependent upon the type of burner used. A contemporary bar burner was modified by reducing the number of ports and substituted for the experimental burner. It was also rated at 21,000 Btu per hour. We were able to increase CO_2 in the flue gases to 8.6 percent with good combustion, and thereby decrease flue losses to the kitchen by 30.7 percent as compared with typical "fresh air" ovens. Primarily because this burner had to be mounted lower in the combustion chamber than the first experimental burner, preheating time to 400F was increased to 6½ minutes, which is still reasonably fast. The acid test of baking cakes yielded uniformly browned products which were within requirements limitations. Of course, this conventional type burner and its pilot could only be turned down to 1,730 Btu per hour, so that minimum oven temperature was 250F in an 80 degree room.

Broiling compartment

A new or little used element has been introduced in broiling with this unit—a golden flame burner (Figure 8). The objectives here include: (1) a fast, uniform broiling heat over a wide area, (2) effective use of heat to minimize heat losses to the kitchen, (3) a broad span of heats down to and including a low pilot heat with a simple burner, and (4) smokeless broiling with luminous or radiant-type flames for their psychological effect.

One of the features best seen is fast, even heat distribution. Bread placed about 2¾ inches below the ports browns evenly over the usable pan area within approximately 3½ minutes from a cold start. The area covered in this demonstration is 36 percent greater than that covered in many typical broilers.

Not only does this smokeless broiler take merely ten of the 16 minutes permitted by requirements to preheat our test thermocouples to 530F above room temperature, but its radiant flames also start to broil meat as soon as it is turned on. Whether thick or thin—with the radiant flame, meats remain tantalizingly rare and juicy in the center! For example, from a cold start a ¼ inch thick steak placed two inches below the

ports requires about ten minutes, while a one-inch thick steak reaches the desired degree of "doneness" in 17 minutes.

Most important of all, heat released to the kitchen is materially reduced to about two-thirds of that normally released by some contemporary broilers. For technical substantiation of this low heat loss, CO_2 in the flue gases of this broiler is increased from a typical concentration of about 3.5 percent to 5.6 percent and the burner has a rather low heat input rating of 14,000 Btu per hour.

With the usual glass wool insulation, and asbestos stripping to minimize metal to metal heat conduction, a fairly cool exposed surface is obtained. For example, we found that the metal door handle was only 14 degrees above room temperature when the Approval Requirements test was applied. The door reached 57 degrees above room temperature.

Both the oven and broiler doors are equipped with gasketing materials to prevent leakage of hot gases or cooking vapors that might deposit unsightly stains. Although we are not sure such door gaskets or seals will last the life of the range, they have reached the point of development where they offer interesting possibilities. We have used some materials intermittently for several months without damaging them.

We have consistently aimed at lower exterior surface temperatures on this equipment to minimize the possible hazard of burning by personal contact and to reduce heat losses to the kitchen.

The simple, small burner is only one twenty-fourth conventional size and can be turned down to 160 Btu per hour. This offers an enticing possibility for using the burner as its own standing pilot, particularly if a thermal sensitive device is adapted to it to shut off the gas in the event of flame outage. This burner, first developed in the series, operates satisfactorily on city gases and most peak load gases, but has smoky flames on straight butane or 1,400 Btu butane-air.

Conclusion

These models are admittedly subject to further improvements in their specific application. But we feel they illustrate the practicability of providing several highly desirable features on gas ranges.

If enough gas company representatives and manufacturers of ranges and accessories are sufficiently interested in this demonstration to initiate action, then others will follow. If we'll take our coats off for further efforts in this direction, we'll soon have a story to tell the great American public in the shape of vastly superior gas ranges.

Gas incinerator

(Continued from page 21)

patronized by substantial members of Philadelphia customers, may qualify under special approval.

(2) Dealer must also have a Gas Double Duty Disposer installed in his *own home* for personal use.

a. PGW will pay $15.00 toward this installation, *provided dealer is a PGW customer.*

b. When due to physical limitations the dealer-owner finds it impossible to install a Gas Disposer in his own living quarters, a second or third person in order of management rank may install one in his home, thereby qualifying the dealer.

3. When the dealer qualified himself by fulfilling the above two conditions, PGW will refund to him $5.00 per Gas Double Duty Disposer sold and installed on PGW meters during 1954, up to a maximum of 15 units, or $75.00.

In addition to promoting the personal use of Gas Double Duty Disposers to dealer-owners, PGW will contribute $15.00 toward the installation of a Gas Double Duty Disposer for the personal use of the following people, closely identified with the sale of this new appliance, and who are gas customers of PGW:

(1) Management and sales personnel of manufacturers.

(2) Management and sales personnel of wholesale suppliers.

(3) Management and full time appliance sales personnel of retail plumbers and dealers.

PGW will offer a sales training program for dealers and their salesmen. The eight PGW dealer contact representatives will carry a chart presentation with them and present the sales pitch before as many dealer sales people as possible. In addition, PGW will supply a printed brochure on "Selli g Hints on the Gas Double Duty D oser" and distribute a customer pi for dealers to give to prospects.

Manufact er and distributor sales personnel are encouraged to join with PGW men in combination meetings, the distributor representative putting on a brand product feature presentation.

PGW will supply floor display material to dealers free-of-charge.

PGW has also arranged with a professional window decorating company to dress upwards of 500 dealer windows free-of-charge. PGW will supply the display materials, the dealer the Disposer of his choice.

The PGW dealer cooperative advertising offer to pay 25 percent of dealers' approved advertising in approved media has been mentioned, as well as the inherent advantages of this policy.

Connections and services

PGW has printed and issued to the trade installation specifications for the Gas Double Duty Disposer.

For years, it has been PGW's policy to render free adjustment service on all gas appliances in customers' homes, regardless of from whom they were purchased, and provided they are A. G. A.-approved and properly installed. This same liberal policy is extended to the Gas Double Duty Disposers.

Dealers appreciate this service policy on gas appliances.

PGW retail support

It has been PGW's policy to display and sell through its retail sales division those gas appliances of manufacturers who support the company's over-all efforts in developing an active gas appliance market, particularly through their advertising and promotion at the customer level, as well as a sound, adequate dealer program.

PGW offered to sell various brands of disposers through its retail sales division, dependent upon the following three conditions:

(1) That the brand receive A. G. A. approval and prior acceptance from the PGW appliance laboratory.

(2) That the brand be adequately represented locally by a supplier who will carry stock and develop wide dealer support. Each manufacturer's dealer

coverage position will be reviewed at the end of each quarter for continuance of PGW's retail support.

(3) That the manufacturer and his distributor show to PGW sales management an over-all advertising and promotional program for 1954 to the extent of $12,000. The gross rate of advertising and promotional expenditure may be made at the rate of $3,000 per quarter cumulative for the year. Each manufacturer's participation at the end of each quarter will be reviewed for continued PGW retail support.

Ten brands have qualified themselves for PGW retail support under the foregoing plan.

In order that manufacturers and distributors know thoroughly the details under which PGW operates its retail sales division, the following guide posts were given to them:

(1) Each manufacturer will have a maximum of two models displayed on each of seven PGW sales floors, if the two models are sufficiently different in characteristics or price.

(2) They will be available for sale to PGW customers through the efforts of 66 street salesmen and 14 sales people in PGW stores.

(3) They will be available to PGW's 3,300 employees for personal use in their homes, under favorable purchase plans.

(4) They will be eligible for the company's employee prospect plan.

(5) They will be used as prizes in PGW cooking schools to the extent participating manufacturers are willing to take advantage of this avenue of promotion.

(6) PGW will buy Gas Disposers from the manufacturer's local wholesale outlet.

(7) PGW sells appliances on an installed basis, and installation is added without mark up.

Equal opportunity

Each manufacturer, who has qualified his brand for PGW's retail sale, has been assured that his brand will receive equal opportunity to develop these sales.

(1) PGW will arrange and pay for an introductory dinner meeting for all PGW retail salespeople, to which a maximum of three representatives of each brand accepted for PGW retail sales are invited.

PGW will provide a suitable display of each brand at this dinner, and it is suggested that suppliers man their exhibits and discuss the features of their gas disposers with PGW sales people following the dinner meeting.

(2) Following this dinner, there will be a series of meetings at gas company district offices where each manufacturer will individually present his product in detail to the PGW retail sales organization.

(3) No manufacturer will be permitted to offer special inducements to PGW sales personnel for the sale of their individual brand, such as prizes, trips, or cash awards.

(4) Where special inducements are offered to PGW personnel to further the sale of gas disposers, such offers will be made by PGW, applicable equally to all brands.

(5) PGW will consider the use of customer sales inducements offered by an individual manufacturer, provided that these inducements are offered on an equitable basis to all retail outlets in Philadelphia selling that brand.

(6) Periodically PGW makes special offers to its employees for personal purchase of gas appliances, at special terms and prices. We plan such an offer on Gas Disposers soon after the program's initiation.

(7) Since all manufacturers are treated in an equal manner, the amount of business to be enjoyed by any individual brand will depend to a great extent on the frequency and quality of the contact made with the PGW retail sales organization, and the amount of customer acceptance developed through local advertising and promotion.

Sales unlimited

This has been a full exposition of one utility's approach to one gas appliance. It is believed that proper planning of *all* phases of a promotion, closely followed by effective execution can and will produce a large, healthy volume of gas appliance sales. The PGW Gas Double Duty Disposer Program has these elements:

(1) A plan that will encourage many manufacturers, distributors and retail dealers to enter the promotion of this new gas appliance.

(2) A budget that provides the wherewithal to motivate all segments of the distribution channels to do specific things.

(3) Utility leadership in persuading customers to buy disposers in ever-increasing quantities.

(4) Equal opportunity for all brands to be sold at retail by the utility on a sound, business-like basis.

PGW looks forward to *sales unlimited with the gas double duty disposer!*

"The Office" Magazine

Management and credit man

(Continued from page 29)

during the war years.

This situation, however, should not be laid to rest simply through expressions of logic and judgment on the part of the credit man. It should be supported by the facts and the reasons for this condition.

Again, I say that I feel it is our duty to prove to management when it is indicated that conditions may be getting worse, assuming, of course, that it is so, that stepped-up collection treatment, increased collector calls, greater denials for non-payments and subsequent reconnection expenses would mean higher costs which would not be recouped from a reduction in the losses.

Now in all of this, I do not mean to convey the impression that we as a group are not analyzing our problem and making some strides in rationalizing the pros and cons of contemplated action. But I do feel we have not begun to scratch the surface in setting up the statistical guides which in large measure can take a lot of guesswork out of the collection activities.

Most statistics can be gathered and maintained relatively inexpensively once a definite pattern of culling the chaff from the wheat is established. Informative statistics must be obtained at some time or we will never know whether our low uncollectible bill ratio is the result of heavy collection costs, or whether our high ratio is the result of ineffective collection action.

I realize that in saying some of these things to credit and collection people, I have bordered on heresy. I know from talking with some of my own credit people that some of you are quite certain it won't work. Unfortunately, I cannot prove my case because no utility, as far as I know, has gone anywhere near as far in this field, as I feel it is possible to go.

But, believe me or not, if we persist in our attitude of being the "untouchables" living in a sacred domain without taking advantage of the splendid opportunities which our operations present for doing a constructive job in the field of customer relations, instead of the destructive job which many of our efforts result in today; if we fail to take hold of the facts which are presented to us daily and build them up for management so that our companies may be a bigger force for good in the social and business life of the communities which we are privileged to serve; if we continue to build up through the machines presently at our disposal a further and more mechanical handling of our collection operations, then the day is not far distant when greater and better machines will be installed by management. Moreover, this same management, which I have reason to feel does not fully appreciate the human side of our job and the vital part it can and should play in the company's over-all operations, might well decide machines are far better credit and collection men than human beings.

Let us, before it destroys us, tear down this sacred hobgoblin of forever maintaining, at whatever cost in dollars and customer good will, a low ratio of uncollectible bills. I am certain that in the tearing down, we will discover greener pastures where no sacred cows will be permitted to graze.

Casualty insurance

(Continued from page 23)

medical payments for industrial accidents in Massachusetts for the latest available years. These are shown below.

The increase in 1949 over 1948 is 12 percent; the increase in 1950 over 1949 is 21 percent, and the increase in 1951 over 1950 is 12 percent. The total increase in 1951 over 1948 is 51 percent.

In gas utilities the increase in compensation costs in Connecticut in 1950 over 1948 is over 100 percent. In Massachusetts the increase in 1950 over 1948 is 20 percent but the increase of 1949 over 1948 was 60 percent.

The increases given are for only two of the New England states. Figures for the other four were not as readily available but we know definitely that the costs are higher.

Do we really recognize the fact that with no limit on medical expense under some state compensation acts and the various exceptions to the limit on compensation, individual cases can reach very high sums? Here are a few examples:

Case #1—New bus was being delivered and it ran into the rear of a tractor trailer unit. Claimant suffered a broken back. Claim—$35,238, medical—$169,-018.

Case #2—Frame of a crane hit claimant and broke his back. Claim—$17,-196, medical—$141,725.

Case #3—Claimant's spine was fractured when he was caught in an elevator. Claim—$18,063, medical—$145,-336.

Case #4—Claimant was struck on the head by an eight-pound pulley which fell from the ceiling. He was in a coma for over six years in Bethseda Hospital in Cincinnati. Sixty-five thousand dollars was expended by the Ohio State Commission and in addition the hospital has spent more than $6,000 which was not covered by insurance.

We could give more examples. The severe ones may not happen often but—do you have men who drive cars or trucks? Do you have anything that could fall from a ceiling weighing eight pounds or more? Do you ever use cranes? If you do, similar accidents could occur and increase your premium costs.

You can plainly see that as benefits are increased, as medical expenses go higher and public claims become more numerous due to greater claim consciousness, our premium costs must increase.

From an insurance cost viewpoint the gas industry may not be alarmed at these increases if we compare them with other overhead items which have increased at alarming rates. Industry must be made to recognize that if it is judging its losses

	Compensation	*Medical*	*Total*
1948	$14,681,659	$ 6,792,131	$21,473,790
1949	16,443,177	7,523,673	23,966,850
1950	20,051,208	8,915,887	28,967,095
1951	22,265,550	10,196,091	32,461,641

from accidents as costs reflected in insurance premiums it is getting only a small part of the true costs that result from accidents. When accidents occur in industry we have an injury to an employee, damage to equipment, tools, and materials and there is usually a slowdown or stoppage of production or work. The costs of the injury are reflected in your insurance costs.

The other costs also increase your overhead. We call these "hidden costs" but they are hidden in many industries only because no one has computed them. They include the costs of repairing physical damage, the costs for remaking the product damaged or redoing the work, the cost of the time of fellow workers who stopped working at the time of the accident, the production lost during this period, the cost of the time spent investigating the accident, the cost of the time spent training a worker to take the place of the injured man, the loss of production until the new man reaches the required skill to carry his full work load, and many other costs if we seek them. *Each gas utility should record these costs so they know what accidents actually cost them. There is too much "they say" about costs of accidents and too little "we know".*

Industry is hurt financially by accidents. Accidents are caused by violations of methods and procedures or defective conditions. Our production failures result from the same causes. All of these failures contribute to inefficiency.

• We must sell our industry the importance of complete accident control. Many of you will say, "That is not necessary in our utility, we are sold." But does the management of your company recognize accident control as an economic necessity to obtain efficiency in operation? Has your company placed the responsibility for controlling accidents on the supervisory staff? Has your company given a training course for supervisors on the basic philosophy of accident control so they can accept and fulfill the responsibility placed on them? Have you had a complete appraisal made of your accident program to determine its weaknesses? If the answer is "No" to any of these questions then management is not sold.

If an accident occurs we must recognize that something is wrong and it must be corrected. To accomplish this we must get the personnel we supervise to follow the established methods and procedures. If accidents are caused by defective physical and mechanical conditions we must correct these defects. Accident control is nothing more than first, getting people to do what we want them to do, when we want them to do it and in the exact way we want it done, and second, keeping physical and mechanical conditions in proper repair. *If we are to prevent accidents, we must eliminate all weaknesses.*

The basic principles of sound accident control are:

(1) An active interest and participation in the work of accident control on the part of all persons in a supervisory or managerial position.

(2) Complete knowledge of the causes of past accidents and existing faulty performances and conditions.

(3) A plan of corrective action based on this knowledge.

These principles are not new. To get the desired quality and quantity of work there must be an active interest by management. The supervisory staff must know the causes of past production failures, determine whether these causes still exist and if they do, initiate plans to correct them.

If our supervisory staff doesn't know how to take an active interest they must be taught this. If they do not know the opportunities they have to observe existing accident causes they must be made aware of them. If our supervisory staff does not know the causes of past accidents, this information must be provided. If our supervisory staff does not have the basic knowledge of accident control, such as the relationship of accident control and production control and a knowledge of the facts needed from an accident investigation, we must teach them. If they do not know the methods of correcting the causes of accidents, this too must be taught.

Many industries place the responsibility for controlling accidents on their supervisor. But if they have not trained them, how can they be expected to get results?

For example, the facts we need to obtain in an accident investigation are very simple but if a supervisor does not understand this, how can he get the needed information? Besides the true cause of an accident, we can readily obtain the reason for the employee's failure and the weakness in management which allowed the failure. Employees fail because of lack of knowledge or skill, mental or physical limitations, fatigue or faulty conduct. *Management fails because of faulty instructions, faulty placement of employees, allowing poor discipline and failure to recognize or correct faulty conditions.*

We must record our success or failure in accident control. Accident frequency of losttime accidents is a poor barometer. You are recording only the luck you have had in the degree of injury. You should record the frequency of all accidents and by departments, if possible. Productive time is lost by first-aid cases. One hundred of these cases requiring three visits at twenty minutes a visit is one hundred hours of lost productive time. You must also keep records to determine your predominating or outstanding accident problems so they can be studied, analyzed and corrected.

Accident control is a production problem. It must be handled as such. When I said a safety engineering department, contests, safety meetings, etc., do not control accidents I meant just that. The safety engineering department is one of the most important departments in industry. Its function is to act in an advisory capacity to management. The responsibility for actual accomplishment lies with management. Creating and maintaining interest by campaigns, slogans, rallies, prizes, etc., is important but is definitely not a cure.

Gas utilities can have sound accident control if they so desire. The results of such control will be manifold—reduced insurance costs, improved employee morale, better supervision and more efficient operation. These are only a few of the many. Fortunately successful control is not complicated, expensive, or unattainable.

Gas utilities have done an outstanding job in keeping the consumer costs of their product down in spite of higher operating costs. This could only be accomplished by efficient operation. When the control of accidents becomes an integral part of that production control you will have reached an enviable position in industry. The goals are there and the challenge can be met.

Industrial relations

(Continued from page 30)

Stewards" has been adopted by the Brush Division of Pittsburgh Plate Glass Company and representatives of United Mine Workers District 50.

Each of the ten "points" in the charter is stated in the form of two direct quotes—one from a foreman, one from a steward. In parallel fashion, it sets forth how each proposes to conduct himself, and what he expects from his "opposite number" in the shop.

Empty words? Might easily be, unless there is already a good relationship between company and union when the charter is proposed. In which case, why is the charter needed? The point was made that the charter "formalizes" an existing good relationship, and will particularly help to maintain that relationship as new people enter the picture, whether they be top management, foremen, stewards, or hourly employees.

If you'd like to see a copy of the charter, write G. E. Hartwell, manager, PPG Brush Division, 3221 Frederick Ave., Baltimore 29.

● **Posting of Birthday Notices**—Most people get a kick out of being congratulated by fellow employees on a service anniversary or birthday. We've run across a number of companies that post service anniversaries in the shop, but Cincinnati Milling Machine Company is one of relatively few we've heard about that post birthday notices. The employee's term of service is noted next to his name on the birthday notice.

The bookkeeping is simple and the notices are posted in each department the day before the birthdays occur. The term of service is a hint, of course, but the company recommends no mention of actual ages.

● **Do you hire the wives,** too?—The latest issue of *Management Briefs,* the private publication of the consulting firm of Rogers, Slade & Hill, quotes Lord Dewar to this effect:

"The road to success is filled with women pushing their husbands along."

And that brings to mind a custom of Armco Steel Company. When an employee reaches the 25-year service mark, he gets all the standard kudos, of course, but it's his wife who receives a gold brooch from the company.

It's becoming more natural for firms, who plan to send prospective employees to other areas, to interview wives. The reason generally given is the high cost of relocating the employee—"you can't afford to have an unhappy wife."

We've never seen a survey on the subject, but it could be true of half the men who start looking for new management jobs: His wife became dissatisfied with his job before he did.

● **Unions not affecting economic expansion**—Joseph Shister, economics professor at Buffalo University, tells a panel meeting of the American Economic Association that unions have had little effect thus far on economic expansion in the United States. He reaches this conclusion after considering the three possible ways in which unions might interfere with economic growth through collective bargaining: (1) reducing productivity; (2) discouraging investment in new plant and equipment; and (3) affecting the "degree of monopoly." But up to now, Shister says, the impact of unions on these has been "relatively negligible."

Shister notes that unions could also affect the rate of economic expansion through influencing government policy. Although union efforts in this field have been "far from significant," he says, the potential, unlike the one in direct collective bargaining, is immense. But Shister thinks unions are likely to continue to focus their efforts on job problems through collective bargaining as long as they consider the pattern of economic growth satisfactory.

● **New "Classic" Definitions?**—One of the discussion leaders at last year's Conference on Human Relations of the Silver Bay Association was Byron Cherry, management consultant of the General Electric Company who presented the definitions that might well be widely adopted:

(1) Management's responsibility is to earn the maximum short-range and long-range profit and to provide the maximum service to customers, owners, employees, suppliers, and the whole public.

(2) True leaders are men who can both lead their organization and follow the lead of their people.

● **Library Additions**—*Motivation and Morale in Industry*—Jammed full with information on sources of motivation and determinants of morale in industry. Emphasis is placed on the application of research findings to increase employee productivity, job satisfaction, and morale. British and American experimental studies and attitude surveys in this field are described in detail. By Morris S. Viteles. W. W. Norton & Co., Inc. New York. 510 pp. $9.50.

Supervising People—This book is written for anyone in a supervisory position. A revised edition, it deals primarily with practical aspects of supervision, discussing problems confronting supervisors and telling how some supervisors succeeded in solving them. Lists many additional books and articles for further study. By George D. Halsey. Harper & Bros., New York. 238 pp. $3.

● **Should Mentally Ill Workers Be Hired?**—Should a veteran receiving a 30 or 40 percent disability pension for psychoneurosis be hired? The federal government has hired a great many of these veterans with good success. But to make an intelligent evaluation it's important to get a complete report from the Veteran's Administration.

Should you tell an employee he is being referred to a psychologist or psychiatrist? Yes. The National Association of Mental Health stands solidly behind the idea that there should be no mystery or attempt to camouflage what you are doing. Concealment just makes the treatment harder. The best action is to make every effort to convince the worker that the specialist is there to help him.

CONVENTION CALENDAR

1954

FEBRUARY

25-26 •Public Utilities Advertising Association, Region 1, Mount Royal Hotel, Montreal, Canada

MARCH

1-5 •American Society for Testing Materials, Shoreham Hotel, Washington, D. C.

4-5 •A. G. A. Gas Supply, Transmission and Storage Conference, New Orleans, La.

15-17 •Mid-West Gas Association, Fort Des Moines Hotel, Des Moines

25-26 •New England Gas Association, Hotel Statler, Boston, Mass.

25-26 •Oklahoma Utilities Association. Biltmore Hotel, Oklahoma City

APRIL

12-14 •A. G. A. Sales Conference on Industrial and Commercial Gas, Edgewater Beach Hotel, Chicago

12-14 •National Conference of Electric and Gas Utility Accountants, Hotel Statler, Boston, Mass.

13-15 •Oklahoma Utilities Association, Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.

15-16 •Sixth National Personnel Conference of the Gas Industry, Edgewater Beach Hotel, Chicago, Ill.

19-20 •A. G. A. Eastern Natural Gas Regional Sales Conference, William Penn Hotel, Pittsburgh, Pa.

19-21 •A. G. A. National Purchasing and Stores Conference, Henry Grady Hotel, Atlanta, Ga.

20-23 •A. G. A. Distribution Motor Vehicles and Corrosion Conference, Mount Royal Hotel, Montreal

22-23 •Indiana Gas Association, French Lick Springs Hotel, French Lick

26-28 •A. G. A. Mid-West Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.

26-28 •Southern Gas Association, Annual Convention, Houston, Texas

MAY

Week of May 10 •A. G. A. Commercial Gas School, Chicago, Ill.

10-13 •Liquefied Petroleum Gas Association, Annual Convention, Conrad Hilton Hotel, Chicago, Ill.

10-14 •National Restaurant Convention and Exposition, Navy Pier, Chicago, Ill. (A. G. A. will exhibit)

13-14 •Public Utilities Advertising Association, Hotel Statler, Boston, Mass.

17-21 •National Fire Protection Association, Statler Hotel, Washington, D. C.

18-20 •Pennsylvania Gas Association, Annual Convention, Pocono Manor, Pa.

19-21 •Gas Appliance Manufacturers Association, Annual Meeting, The Drake, Chicago, Ill.

24-26 •A. G. A. Chemical, Engineering and Manufactured Gas Production Conference, Pittsburgh, Pa.

Personnel service

SERVICES OFFERED

Sales Manager—Over twenty years broad experience in Natural, Manufactured and LP-gas properties, training and supervising salesmen, dealer-plumber relations and service departments. Thorough knowledge of purchasing, merchandising and load building. Desires permanent position. Excellent references. **1764.**

Analytical Chemist—B.S. with fourteen years chemical plants control experience and nineteen years gas company experience in both control and supervision. Desires position in chemical laboratory, or as assistant supervisor of small property. Prefer location in South. Available immediately. **1765.**

Heating Supervisor or Salesman—Gas Heating Salesman, sixteen years experience with natural gas company would like position as Heating Supervisor or Salesman. Will locate anywhere. Further information on request. **1766**

Mechanical Draftsman—Young man with five years of diversified experience in mechanical, electrical field would like employment in mechanical drafting line. Excellent school, employment and personal references can be presented. More interested in chance of advancement and security than starting salary. (27) **1767.**

Safety Director—Twelve years' experience, including Director of Safety for three years at large Midwest Gas Utility. Wide knowledge of natural, manufactured and LP-Gas operations. Also well acquainted with fleet operations. **1768.**

Manufacturers' Representative—since 1938 wants gas appliance line for California headquarters Los Angeles. Residential commercial and industrial experience. **1769.**

POSITIONS OPEN

Superintendent—In fast-growing New England utility. Process of manufacture-water gas. Splendid opportunity for experienced operator. Give all pertinent information in letter of application. Replies confidential. **0711.**

Young Gas Engineer—Wanted in connection with operation of two manufactured gas plants and distribution systems. Excellent opportunity for future. Desire mechanical-chemical graduate with few years experience manufactured gas. Reply stating age, experience, education, and personal particulars. **0712.**

General Manager—To assume administrative responsibilities and complete direction of a manufactured gas utility. In addition to previous supervisory experience, must have sales and technical background. Position offers permanency and opportunity. Salary commensurate with ability and experience. Submit detailed resume of background, experience, and salary requirements, which will be treated with utmost confidence. **0714.**

Measurement Engineer—New gas transmission line operating in Southern New England States requires services of a measurement engineer to supervise field operations for entire system. Experienced with positive and orifice measurement, instrument and pilot control regulators, telemetering, calorimeter and gravitometer installations. Salary commensurate with experience and ability. Please forward resume. All replies confidential. **0715.**

Project Engineer—Large eastern gas manufacturing company has vacancy for a design engineer for extensive new construction and improvement to present plant facilities. Duties include engineering studies, specifications for and selection of new equipment, and direction of draftsmen. Salary commensurate with experience. **0716**

Gas Distribution Superintendent—Experienced distribution superintendent for manufactured gas system located in Southwestern Florida. Property has 26,000 consumers. Superintendent to take charge of construction and maintenance of mains and services, operation of meter shop and customers service work. All replies treated with strictest confidence. **0717**

Research Aide—to assist in supervision of industry program. Immediate opening New York City for graduate engineer 30-40 years age, personable, ability to handle people, preferably with at least five years experience in gas utility, and familiar with natural gas recovery and transmission operations. Salary commensurate with ability, good opportunity for advancement. **0718**

Street Department Superintendent—Natural Gas company located in the Middle West has open-distribution experience. However, principal ing for graduate engineer to take charge of street department construction, operation and maintenance. Salary commensurate with ability and experience. Replies will be confidential. **0719.**

Distribution Superintendent—Growing natural gas company located in the Middle West seeking the services of a graduate engineer who has had transmission and distribution experience with construction, operation and maintenance of underground structures as well as having first-hand knowledge of service department operation. Replies will be confidential. **0720.**

Sales Engineer—For home office of prominent midwestern industrial burner manufacturer. Sales correspondence, promotion, advertising with some traveling. Excellent opportunity with established firm expanding sales and new products. Submit resume of education, experience, history, and ambitions which will be held in strictest confidence. **0721.**

Home Service Director—With necessary experience for staff supervision. Requirements include degree from accredited college and familiarity with sales activities. Public speaking ability and good demonstration techniques essential. Gulf coast area. Submit resume of education and experience. **0722.**

Project Engineer—To develop automatic gas control valves for well known midwest manufacturer. Three to five years' experience in control design and application required. Please supply resume of education, experience, earnings, objectives. Replies held in confidence. **0723.**

Plant Superintendent—Connecticut utility requires experienced gas production man capable of taking over as superintendent of plant which produces either propane air gas or high Btu oil gas supplementing natural gas supply. Prefer under 45 with technical background and distribution experience. However, principal qualification is successful supervisory experience in production. For properly qualified man this is a permanent, pleasant, and well paid position. **0724.**

Employee selection

(Continued from page 33)

faced with clerical help shortages, find that selection and placement is primarily a process of hiring any applicants found who meet the minimum requirements.

Utility companies may possibly be a bit more fortunate in this respect. In any case, the participating companies report that shortages of clerical help have not in general forced such short circuiting of the selection procedure. They state that in the final step of the selection process, the accumulated data regarding an applicant is evaluated and compared with the individual job requirements.

The interviewer has the responsibility for analyzing the applicant's apparent ability, character, motivation experience, school record, test results, and ability to get along with others. He must, in addition, be sure that the applicant fully understands the job requirements.

Some companies have found that meter readers were leaving after exceedingly short periods of employment, simply because prior to hiring, the applicants had not fully understood what the work actually required. If it is apparent that the applicant is qualified for a particular job, the interviewer must try to make sure the applicant wants the job and is convinced the job is right for him.

In most of the companies surveyed, it is the practice for the supervisor in the department in which a vacancy exists to make the final decision as to whether or not the applicant shall be hired. In these cases, the applicant is interviewed by the supervisor. The supervisor is given records pertaining to the applicant, together with interviewer's recommendation.

The first line supervisor is in a better position than anyone else to fully explain the job requirements to the applicant. Before making the final selection, the clerical supervisor can actually show the applicant the type of work he would be doing, the work location and other details. In addition to giving the supervisor an opportunity to size up the applicant, it gives the applicant an opportunity to size up his prospective boss, the people he would be working with, the work location, and the type of work.

Regardless of the qualifications of any applicant, his success as an employee depends largely on a harmonious relationship with his first boss, and his satisfaction with his work environment. The supervisor will be less critical and will work more closely with employees he has actually selected.

In conclusion, careful selection of clerical employees can have a profound effect upon the operating efficiency of an office, and can in turn play an important part in controlling clerical costs. If well-qualified and willing workers are continually being brought into the organization to meet current needs, clerical work performance will tend to remain at a high level, assuming conditions of efficient procedure and adequate supervision. The reporting companies have found this to be fundamental. They uniformly believe that a well-planned and administered selection procedure can materially aid in maintaining a high standard of clerical performance, and effectively help control clerical costs.

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